



# 65.000

**reasons for better chemicals**

**THE TODDLER'S  
CHEMICAL COCKTAIL**

**65000.DK**



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**reasons for better chemicals**

There are approximately 65,000 two-year-olds in Denmark. These toddlers share many characteristics when learning about the world, for example the way they act when eating, bathing, sleeping or playing. You never know what they will get up to: they might eat sand, paint their nails with a felt tip pen, eat dust, suck on shower curtains or put toys in their mouth.

Each of the 65,000 two-year-olds in Denmark is a good reason to secure better chemicals in our daily lives.

Every day young children are exposed to a chemical cocktail from the indoor climate, the food they eat and the products they use, which apply to all of us. However, due to the size of the toddlers, their behaviour and stage of development, young children

are particularly vulnerable, as they are exposed to chemicals in many different situations during a 24-hour period, and in the worst case that this may lead to endocrine disruptions and allergies.

This leaflet will provide you with an overview on how you can help protect young children. As something new, the guidelines presented here are based on a comprehensive analysis of a typical day in the life of a typical two-year-old. The Danish Environmental Protection Agency has investigated which endocrine disruptors and potential endocrine disruptors that two-year-olds are exposed to during a 24-hour period, and whether these present a risk.

Their main conclusion is that the majority of the endocrine disruptors that your child is exposed

to derive from indoor climate and the food. There are especially three substance groups that we must target: Parabens, which are used as a preservative in some sunscreens and body lotions; phthalates, which are used as softeners in plastics; and PCBs, which have previously been used in buildings etc.

The most important thing you can do is to ensure that your child eats a varied diet, provide a healthy indoor climate and buy products that do not contain endocrine disruptors and allergenic substances. By doing so, you can dilute the cocktail of substances that your child is exposed to.

Even though this advice is based on the world of a two-year-old, it is equally valid for adults and children of all ages.



## Documentation

Endocrine disruptors are under suspicion of reducing fertility, causing abnormal sexual development, premature puberty as well as breast and testicle cancer. Studies have shown that low concentrations of endocrine disruptors on their own do not constitute a risk, but may constitute a risk when appearing in combination with other substances. This is called the “cocktail effect”.

The Danish Environmental Protection Agency has investigated a number of typical products from the daily life of a two-year-old, and over a 24-hour period has looked more closely at the impact of potential endocrine disruptors and allergenic substances. This study has shown that the parabens butylparaben and propylparaben found in sunscreens and body lotions may constitute a risk for two-year-olds. Phthalates and PCBs may also constitute a problem in food. In addition to this, we are exposed to phthalates and PCBs indoors.

*Read more about the campaign, the advice and studies here:*  
**[www.65000.dk](http://www.65000.dk)**



# Eight

**pieces of advice for better chemicals**

**1**

MAKE SURE THERE IS A GOOD  
INDOOR CLIMATE – AIR OUT  
AND CLEAN ROOMS

**3**

BUY SWAN-  
LABELLED PERSONAL  
CARE PRODUCTS

**5**

AVOID THE  
MOST DANGEROUS  
PHTHALATES

**7**

THROW AWAY  
OLD SOFT-PLASTIC  
TOYS

**2**

SERVE VARIED FOOD  
AND USE APPROPRIATE  
KITCHEN UTENSILS

**4**

BUY PERSONAL  
CARE PRODUCTS  
WITHOUT PERFUME

**6**

WASH  
NEW PRODUCTS  
BEFORE USE

**8**

BUY CE-LABELLED  
AND UNPERFUMED  
TOYS

Read more about the campaign here:  
[www.65000.dk](http://www.65000.dk)

Read more about food and healthy diets  
on the Danish food authority's website: [www.fvst.dk](http://www.fvst.dk)

Read more about eco-labels here:  
[www.ecolabel.dk](http://www.ecolabel.dk)





The Nordic ecolabel 'the Swan' and the EU ecolabel 'the Flower' are your guarantee that a product comply with strict environmental requirements and is among the least harmful on the market. The Nordic ecolabel has increased the focus on health aspect.



The CE label is the manufacturer's declaration that the product meets EU health and safety requirements. Toys for children aged 0-14 may only be sold if they are CE-labelled.



The glass and fork symbol indicates that a product meets the requirements for food contact materials.

# 1

## MAKE SURE THERE IS A GOOD INDOOR CLIMATE – AIR AND CLEAN ROOMS

Two-year-olds love to play outdoors. However, during a 24-hour period, they spend most of their time indoors. Just like the rest of us. Indoors, children roll around on the floor and put things into their mouth, often with dust. The dust may contain endocrine disruptors.

Our homes are filled with products that supply chemical substances to the indoor climate. TVs, game consoles, computers, rechargers and other electronic products, add chemical substances when turned on or on standby. A new sofa, play tent or carpet can supply chemical substances when packaging is initially removed. And if you spray your winter boots indoors with a protectant, this will greatly impact the indoor climate.

The best thing you can do to protect your child against endocrine disruptors is to ensure a good indoor climate. Air out twice a day, clean once a week, dust electronic equipment and turn these off when not in use, and leave new products outside if they have a chemical smell.



More advice on indoor climate is available at:  
**[www.lukluftenind.dk](http://www.lukluftenind.dk)**



## 2 SERVE VARIED FOOD AND USE APPROPRIATE KITCHEN UTENSILS



Children are creatures of habit. They love rituals and fixed routines. This is also true at dinnertime. Spaghetti with meatballs is always a favourite amongst two-year-olds. However, it's important that children eat a varied diet – because of the chemicals.

Some of the endocrine disruptors absorbed by children come from food. Food can contain small amounts of chemical substances that originate from the environment, packaging or the processing of the product. By serving different foods to your child, you reduce the risk of your child being exposed to too high amounts of harmful substance.

When cooking, always use food containers, tableware and kitchen utensils that are intended for food. Look for the glass and fork symbol, which certifies that a product meets the requirements for food-contact materials, and remember to follow the instructions. Remember to wash all products before using them, including placemats and bibs.



Read more about chemical contamination of food here:  
[www.fvst.dk/Foedevarerikkerhed](http://www.fvst.dk/Foedevarerikkerhed)





# 3

## BUY SWAN- LABELLED PERSONAL CARE PRODUCTS



The bath tub is a wonderful playground, and bath time is a time of fun and games. However, it's important that you think about the products you use. Body lotion, sunscreen, soap and shampoo can all contain butylparaben and propylparaben. These substances might constitute a risk for young children.

This is why you should avoid personal care products containing butylparaben and propylparaben. That can easily be achieved by buying Swan labelled products. Alternatively, you can read the list of ingredients to see if the product contains the two parabens. Look out for the names 'butylparaben' and 'propylparaben'.

Swan-labelled personal products do not contain substances that the EU suspects of endocrine disrupting properties.

It's important that you protect your child against the sun – therefore any type of sunscreen is better than none at all. Even if the sunscreen does contain butylparaben and propylparaben.



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*Read more about swan-labelled products here:*  
**[www.ecolabel.dk](http://www.ecolabel.dk)**







## 4 BUY PERSONAL CARE PRODUCTS WITHOUT PERFUME



Two-year-olds are fascinated by fragrances – a strawberry bubble bath is bound to please most kids. However, the scent is not necessary.

Perfume can lead to allergic reactions such as itching, rash or impaired breathing. If your child develops an allergy, it won't just disappear. This is why you should avoid lotions, soap and shampoo where 'perfume' or 'aroma' appear on the declaration of content. And there is no guarantee in looking for natural or organic fragrances. These can all be just as allergenic as synthetic substances.

Baby care products with the Swan label are perfume free, however note that other products with an ecolabel may contain perfume.



# 5

## AVOID THE MOST DANGEROUS PHTHALATES



The world should be embraced using all senses. And even after the age of two, children still tend to put many strange things in their mouths – even things that you would least expect. They might suck on the shower curtain, rubber clogs, lunchbox, the pretty print on their pyjamas and so on.

Endocrine disrupting phthalates are banned in toys. However, they are still found in a number of other products, and when a two-year-old is around, the bathmat or soap dispenser may easily become a bath-time toy.

Soft-plastic products and clothes with PVC print on them may contain phthalates. Some are hazardous, others are not. Avoid the four called DEHP, DBP, DIBP and BBP. For example you are not able to find information on whether the shower curtain contains these four phthalates. Therefore you have to ask for information in the shop.

You can find a wide range of soft-plastic products, e.g. lunchboxes and shower curtains that don't contain the four endocrine disrupting phthalates. If your lunchbox or flask smells of chemicals after you have washed it, you can report this to the food control authorities in your region.



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Find your local food control authorities: [www.fvst.dk](http://www.fvst.dk)





## 6 WASH NEW PRODUCTS BEFORE USE



Both children and adults love getting new things. It is tempting to put on a new pair of “cool” trousers, crawl under the new bed covers or chew on a new plastic toy when leaving the toy shop.

New clothes, bed linen and towels may contain chemical substances that your child can absorb through the skin. If you wash bed linen, clothes, soft toys and plastic toys before using them, you can reduce the amount of any chemical residues found in the product. Remember to read the washing instructions.

When you wash new products, use products with the Swan label or the Flower label to avoid substances that are harmful to the environment. You should also use unperfumed products.

New pacifiers should be boiled and rinsed before use.





You ought to throw away soft-plastic toys for children younger than three, if bought before 1999, as this age group tend to suck on their toys. Return the toys to your local recycling centre where they will dispose of them appropriately.

Since 1999, Denmark has banned the use of endocrine disrupting phthalates in toys for children under three. And in 2007, a ban was introduced on endocrine disrupting phthalates in all toys throughout the EU.







## 8 BUY CE-LABELLED AND UNPERFUMED TOYS



The world is an adventure waiting to be explored. A favourite toy is dragged around from morning to evening, and on the way it is hugged, kissed, examined, disassembled and put back together over and over again. But children do not read the label for use, and often they do not use toys in the way they were intended. They may taste the finger paints and play dough, or chew on the teddy bear's ear. This is why it is so important that toys meet health and safety requirements.

All toys for children under the age of 14 must be CE-labelled. This means that these toys are manufactured in accordance with the EU's regulations for toys. The manufacturer is solely responsible for ensuring that the toys meet the requirements. Products that are not CE-labelled are not made for children and do not necessarily meet the EU requirements for toys.

You should also buy toys that do not contain perfume, as many perfumes are allergenic. Keep an eye on your child when he/she is playing with chemical toys such as finger paints, other kinds of paint and glue. These kinds of toy are not meant to be eaten - and remember to wash their hands thoroughly when play time is over! When buying finger paints and other chemical toys, buy products that do not contain the substances butylparaben and propylparaben. With regard to finger paints, these substances will be listed on the container itself, either by the name or as E216 and E217.

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*Read more about the CE-label here:*

**[www.sik.dk/Forbrugere/Produkter/Maerkning-af-produkter](http://www.sik.dk/Forbrugere/Produkter/Maerkning-af-produkter)**



# Chemicals under suspicion

## Parabens

Parabens are often used as a preservative in soaps and other personal care products. EU suspect four parabens of possessing endocrine disrupting effects. The substances in question are methylparaben, ethylparaben, butylparaben and propylparaben. The investigation has focused on butylparaben and propylparaben as the EU has assessed that methylparaben and ethylparaben are safe to use in cosmetics. Parabens can be absorbed through the skin, however it is still unclear just how much is absorbed. If a cosmetic product such as sunscreen or shampoo contains either butylparaben or propylparaben, this must be stated on the product's list of contents.

## PCBs

PCBs are a group of substances and some PCBs are potential endocrine disruptors. All use of PCBs has been banned since 1986, however PCBs are still found in soft grout and glue for double-glazing in a number of Danish buildings either erected or refurbished between 1950 and 1976. PCBs are found in the air and dust in these buildings and contribute to the total exposure to endocrine disruptors. These substances accumulate in the environment and food chain. PCBs from the surroundings are accumulated in the food chain, especially in fatty fish and other animal fat. Follow the general advice to eat a varied diet to keep your intake of pollutants such as PCBs at a minimum. It is still important that children eat fish, as fish contain healthy substances.

## Phthalates

Phthalates are primarily used to soften PVC plastics. Some phthalates are endocrine disruptors while other phthalates are being potential endocrine disruptors. There are also phthalates that have no endocrine disrupting effect. The most dangerous phthalates are DEHP, DBP, DIBP and BBP, all of which are endocrine disruptors. Since 2007, three of these substances, namely DEHP, DBP and BBP have been banned in all toys for children under the age of 14. The phthalates DINP, DIDP and DNOP are banned in all toys that children might put in their mouth. In Denmark, all phthalates have been banned in toys for children under the age of three since 1999.

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*See which substances the EU suspects of possessing endocrine disrupting properties at:*

**[www.65000.dk](http://www.65000.dk)**



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If you have any questions about the campaign,  
please call the Danish Ministry of the Environ-  
ment's Information Centre at (+45) 7012 0211 or  
write an email to [info@mim.dk](mailto:info@mim.dk)



Children are exposed to a cocktail of chemicals every day; from the indoor climate, from the food they eat, and from the products they use. This leaflet contains eight pieces of advice on how you as a parent can put into practice the latest knowledge about children and endocrine disruptors.

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MILJØMINISTERIET

Miljøstyrelsen