Chemicals in Children's Everyday Lives

Practical advice for the parents of small children and adults who work with children.
A safe environment for good health.

CONTENT

Foreword	1
Worried?	2
Children's rooms	4
In the bathroom	8
In the playground	12
Insect repellents and sun cream	14
Clothing and equipment	16
When adults use chemicals	18
Worth noting	23
Find out more	26

CHEMICALS IN CHILDREN'S EVERYDAY LIVES

When it comes to chemicals, children live more dangerous lives than adults: Babies investigate objects by putting them in their mouths and crawl over floors on which there may be chemical residues as well as dust and dirt. Toddlers love to explore drawers, cupboards, garages, and other storage areas.

Small children's bodies are especially vulnerable to chemicals that are hazardous to their health and are at greater risk of developing allergies than adults. The environmental authorities work on the principle of better safe than sorry. This means we have to take into account the risk of something being harmful – even when we are not entirely sure how harmful it is. We do not know enough about how well small children tolerate being exposed to various chemicals. But we do know that we have to be extra careful to protect them in order to be on the safe side. The environmental protection authorities are therefore not content with just saying that everything will be okay as long as people buy legal products. The fact that a chemical is not banned does not necessarily mean that it is smart to use it. It would be wisest to avoid using some products, while others should be used as little as possible, and only in very specific ways.

Our children cannot protect themselves from hazardous chemicals. We adults, who take their decisions for them, must make sure that we err on the side of caution and do not take chances. This brochure provides practical advice and guidance on what to do.

These guidelines were drawn up by the Norwegian Pollution Control Authority (SFT) with expert assistance from the Norwegian Food Safety Authority.

WORRIED?

FACT:

Follow the instructions on the products and buy ecolabelled products if you can.

Many people are understandably concerned about chemicals in our everyday life. The number of people with allergies has, for example, exploded since the 1960s. Our chemical lives are probably an important reason for this. There are thousands of chemicals in circulation, and we know too little about many of them. Experts can disagree and sometimes the media presents sensational stories about chemicals with hitherto unknown harmful effects on our health and the environment. However, even if the information we receive via the media is not always correct, at least it contributes to the debate and focuses on the problem. Nobody knows everything about chemicals and their possible harmful effects. So, when it is this difficult to obtain an overview, how should we protect ourselves – and our children?

Even though we do not know everything, we at least know enough to take certain precautions.

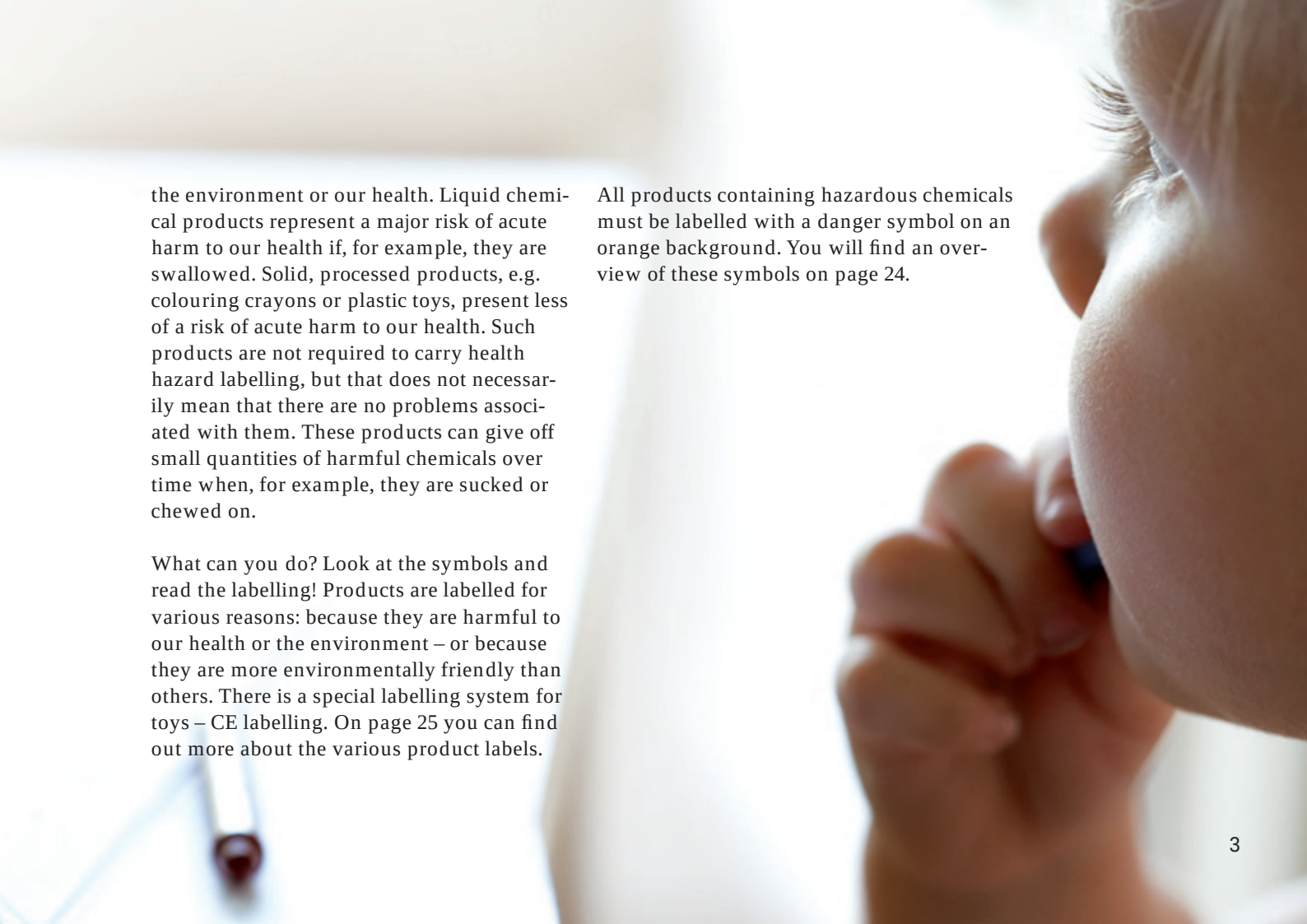
Chemicals can be hazardous in various ways. They can represent a risk of fire or explosion, or be harmful to the environment or our health. Chemicals that are harmful to our health can be toxic, trigger allergies, cause genetic damage, be corrosive, be irritants, and so on. Toxic substances can be acutely toxic, meaning they work immediately, or the chemical's effects can become apparent over a longer period of time. Some chemicals are flushed out of, or quickly broken down by, our bodies, while others are stored in our bodies for long periods and can result in permanent damage. The harmful effects of some chemicals that are retained in our bodies only become apparent in subsequent generations.

Hazardous chemicals enter our homes in many ways. When we buy products such as paint, insect repellent and cleaning products, we know that these can be harmful to our health. But products like clothes, toys or PCs can also contain and give off larger or smaller quantities of chemicals that can be harmful to

the environment or our health. Liquid chemical products represent a major risk of acute harm to our health if, for example, they are swallowed. Solid, processed products, e.g. colouring crayons or plastic toys, present less of a risk of acute harm to our health. Such products are not required to carry health hazard labelling, but that does not necessarily mean that there are no problems associated with them. These products can give off small quantities of harmful chemicals over time when, for example, they are sucked or chewed on.

What can you do? Look at the symbols and read the labelling! Products are labelled for various reasons: because they are harmful to our health or the environment – or because they are more environmentally friendly than others. There is a special labelling system for toys – CE labelling. On page 25 you can find out more about the various product labels.

All products containing hazardous chemicals must be labelled with a danger symbol on an orange background. You will find an overview of these symbols on page 24.



CHILDREN'S ROOMS

Much of what can be found in children's rooms can contain chemicals that are harmful to the environment or our health: colourful toys, makeup, jewellery, materials for creative arts and textiles. For some products there are rules about what they can contain, but for many products there is only a general requirement that they should not be hazardous.

Mattresses

The soft foam plastic that is used in, for example, mattresses can contain small quantities of chemicals that are very allergenic. They quickly vaporise and are gone after a couple of weeks. Mattresses are supposed to be aired at the factory, but if a new mattress smells, it may be a good idea to air it well before use. Alternatively you can choose a mattress made of a different material.

Bedclothes

Do you think your new bedclothes smell? The smell is due to chemical residues in the materials, e.g. formaldehyde or dyes. These chemicals can be allergenic. If you wash the bedclothes before use, the chemical residues will disappear. You can find tips on safe washing agents on page 18.

Soft plastic toys

Soft plastic toys like dolls and bath toys may be made from PVC plastic. Chemicals have to be added to the PVC plastic to soften it. Some of these softeners – phthalates – are harmful to our health. Children can ingest phthalates by biting or sucking on the products. In 1999, the sale of products intended for children under three years old containing phthalates was banned. Even though it is illegal to sell products intended for children under three years old that contain phthalates, there is every reason to remain alert. Products intended for older children can still contain phthalates.

Crawl mats/gym mats

Gym mats made from PVC plastic can contain phthalates. Such mats are therefore not suitable as crawl / gym mats for very young children. The mats can also contain antibacterial agents that can be allergenic for small children. Ask the salesperson if you are unsure about what the mat contains.

Luminescent toys

Please note that toys that consist of a plastic tube with a luminescent liquid may contain chemicals that are harmful to people's health. Fluorinated figures do not contain hazardous chemicals. Neither are they hazardous when they glow.

FACT:

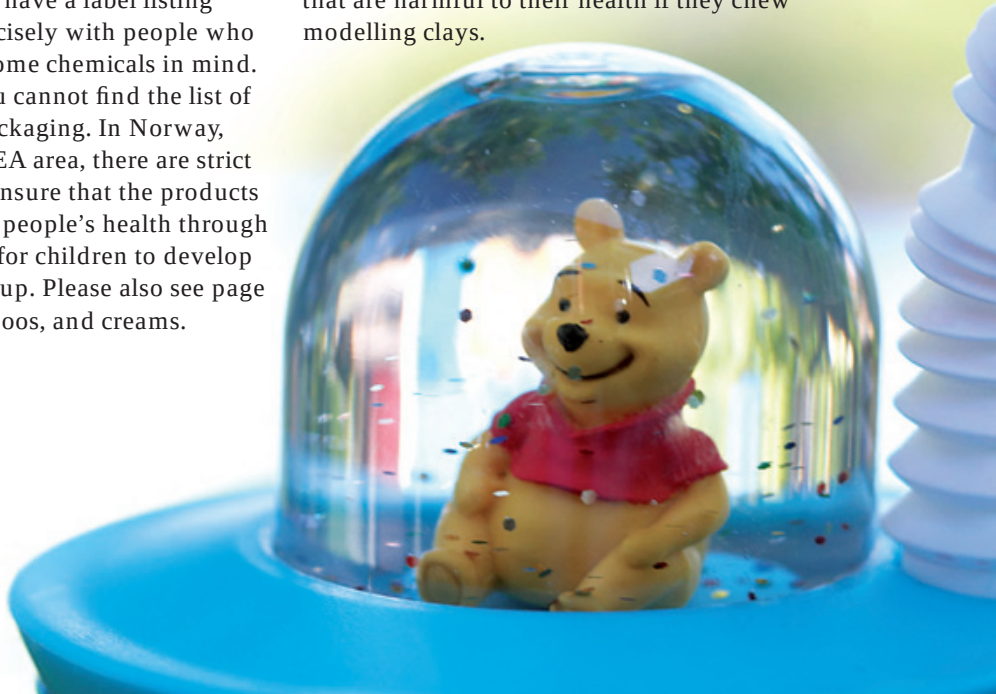
The three most hazardous phthalates will be banned in all toys in 2007.

Makeup

Makeup can contain chemicals that some people may react to, e.g. dyes, preservatives or perfumes. If you know that your children are allergic to certain chemicals, you can check the list of ingredients on the product. All cosmetics have to have a label listing their ingredients, precisely with people who may be sensitive to some chemicals in mind. Ask in the shop if you cannot find the list of ingredients on the packaging. In Norway, as in the rest of the EEA area, there are strict rules for makeup to ensure that the products do not cause harm to people's health through normal use. It is rare for children to develop allergies due to makeup. Please also see page 9 about soaps, shampoos, and creams.

Modelling clays

Many types of modelling clays contain and give off chemicals. Some are, for example, based on PVC plastic containing softeners that can have a negative impact on health. Children are at risk of ingesting chemicals that are harmful to their health if they chew modelling clays.



Children's glues and paints

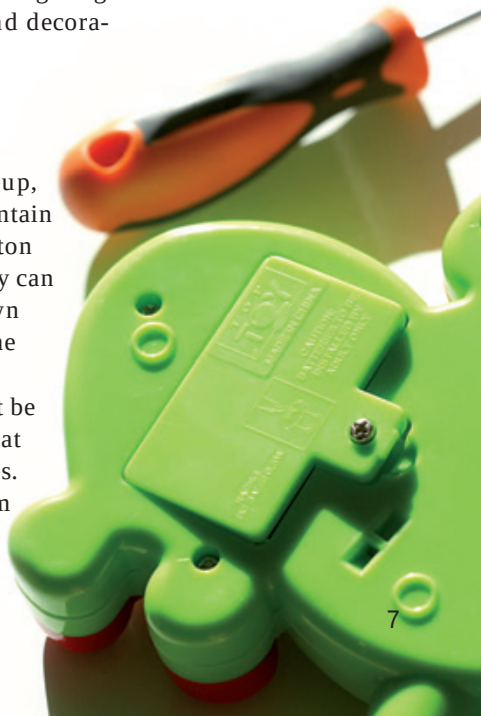
Such products are often water-based, but they can contain preservatives that can trigger allergies. Glues and paints for hobby use and building sets can contain chemicals that are harmful to health, e.g. solvents. The rules for products intended for children are stricter than those for products intended for adults.

Liquid filled products

Liquid filled products can contain several types of liquid, for example water and mineral oils. The water can contain bacteria or disinfectants that can represent a danger if swallowed. The oils can also be dangerous if they are swallowed. Children may ingest the liquids if the product leaks. Examples of liquid filled products include drinking mugs with double walls, various toys and decorations.

Toys and other products with batteries

Toys and other products that light up, play and produce other sounds contain batteries. As a rule these small button cell batteries contain mercury. They can cause major harm if they are thrown into a rubbish bin and end up in the environment. Button cell batteries and all rechargeable batteries must be handed in. They can be handed in at any retailer who sells such batteries. They all have a duty to accept them free of charge.



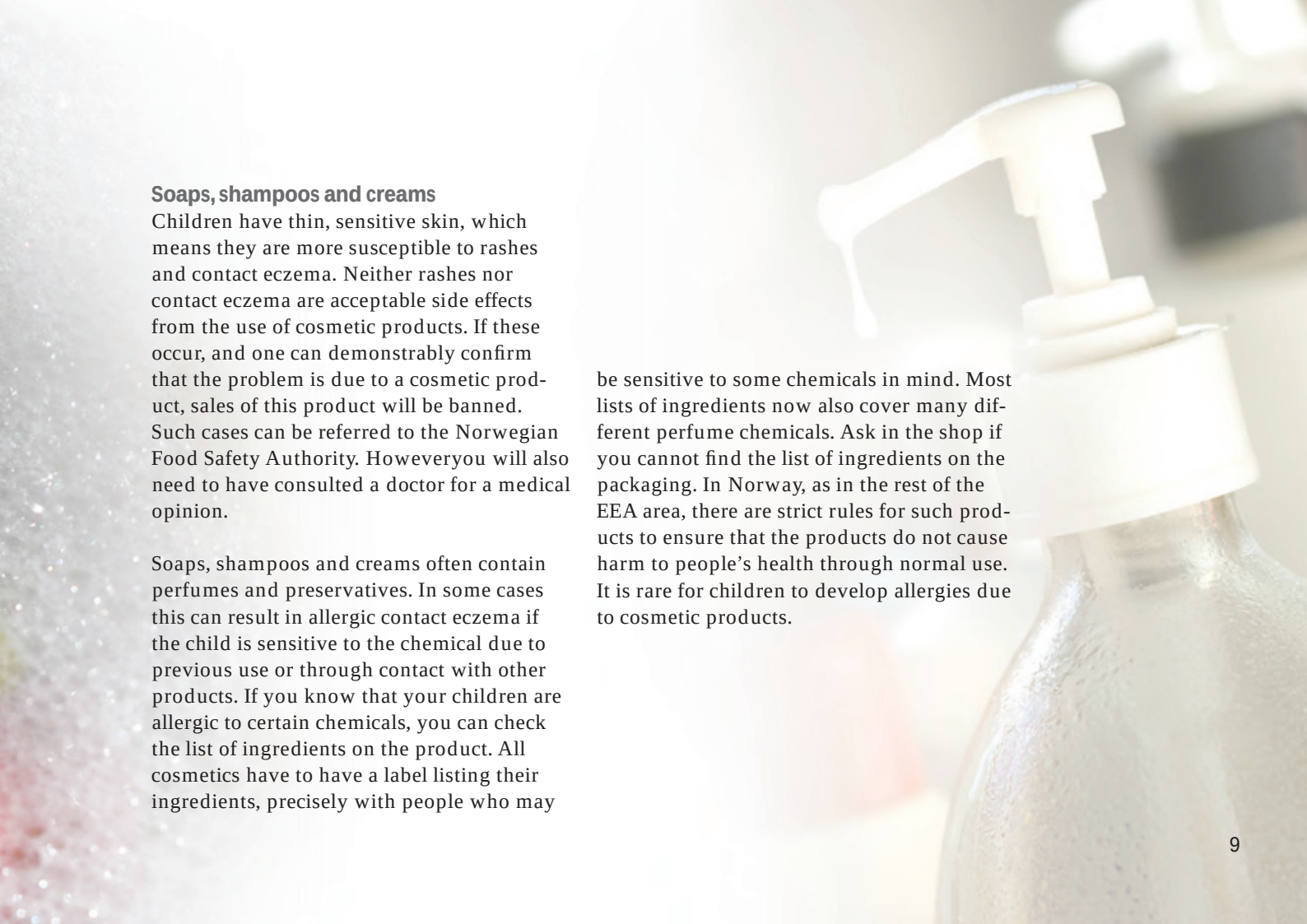
IN THE BATHROOM

FACT:

Look for products displaying the Swan label, labelled with the EU Flower, or that are recommended by the Norwegian Asthma and Allergy Association *(Astma- og allergiforbundet)*. See page 25 for more information.

We wash and groom our children a lot. Many body and care products contain perfumes and preservatives, which in some cases can trigger allergies. Don't wash too much!

- Clean water is a well-tested and often more than adequate washing agent.
- Avoid products containing added perfumes or preservatives.
- Limit your use of wet wipes.
- Avoid products containing antibacterial agents.



Soaps, shampoos and creams

Children have thin, sensitive skin, which means they are more susceptible to rashes and contact eczema. Neither rashes nor contact eczema are acceptable side effects from the use of cosmetic products. If these occur, and one can demonstrably confirm that the problem is due to a cosmetic product, sales of this product will be banned. Such cases can be referred to the Norwegian Food Safety Authority. Howeveryou will also need to have consulted a doctor for a medical opinion.

Soaps, shampoos and creams often contain perfumes and preservatives. In some cases this can result in allergic contact eczema if the child is sensitive to the chemical due to previous use or through contact with other products. If you know that your children are allergic to certain chemicals, you can check the list of ingredients on the product. All cosmetics have to have a label listing their ingredients, precisely with people who may be sensitive to some chemicals in mind. Most lists of ingredients now also cover many different perfume chemicals. Ask in the shop if you cannot find the list of ingredients on the packaging. In Norway, as in the rest of the EEA area, there are strict rules for such products to ensure that the products do not cause harm to people's health through normal use. It is rare for children to develop allergies due to cosmetic products.

Today, many cosmetic products have a symbol of a jar being opened printed on them that shows how long the product is safe to use. A good tip is to throw the product away after its expiry date. This should first and foremost be done to avoid problems due to the possible content of harmful bacteria or other harmful microorganisms.

If you are unsure whether manufacturers have recorded side effects from the use of cosmetic products, you can contact them at the following web address: www.european-cosmetics.info. If you cannot find the manufacturer here, you can ask the Norwegian Food Safety Authority for help.

Some soaps and toothpastes contain antibacterial agents that can cause bacteria to become resistant to antibiotics. A normal bacteria flora provides your child with better resistance against harmful bacteria. You should therefore check the ingredients list so you can avoid using products containing antibacterial agents. One common antibacterial agent is called triclosan (known as *triklosan* in Norway).

Wet wipes

The moistness of wet wipes is due to them containing various solvents, preservatives and perfumes. Some of these compounds can trigger allergies. Please also see the section on soaps, shampoos and creams.

Nappies

The question of whether to choose disposable nappies or cloth nappies is of interest to many people. Both have their advantages and disadvantages, without one standing out as the most environmentally friendly. It is a question of what suits the family best.

Baby dummies and teething rings

Previously, many teething rings and baby dummies were made of PVC plastic that contained phthalates. These are now banned. The authorities do not regard today's baby dummies and teething rings as presenting a health problem.

IN THE PLAYGROUND

Climbing frames, sandpits and other wooden equipment are often found in playgrounds, nursery schools, schoolyards and residential areas. This wood is often treated, impregnated, with chemicals to prevent it rotting.

Impregnated wood

Railways sleepers and many telephone poles are impregnated with creosote. Creosote or coal tar contains carcinogenic chemicals and gives off a characteristic smell of tar. The use of wood impregnated with creosote in playgrounds or other places where skin can easily come into contact with it, is banned.

Wood may also be impregnated with copper chrome and arsenic (CCA impregnation). The use of this was banned in 2002. CCA impregnation resulted in problems with the runoff of chrome and arsenic into the sand in sandpits. Even though chrome and arsenic are now banned in wood impregnation, many of the materials that are already in use contain these chemicals. It may therefore be a good idea to periodically replace the sand around playground equipment.

In some places the ground will have been contaminated by earlier activities. The Norwegian Pollution Control Authority (SFT) has drawn up some “Guidelines for the Risk Assessment of Contaminated Sites”, which also apply to nursery schools. If these norms are exceeded, then the materials have to be replaced.

INSECT REPELLENTS AND SUN CREAM

FACT:

Light clothing can provide small children with good protection against both insects and the sun.

Many products are produced to protect both children and adults against various things while we are outdoors. In the case of some protection products one should think carefully about how we use them.

Insect repellents

Most insect repellents, such as mosquito repellents, contain a compound called DEET, which may result in harm to one's health in high concentrations. Insect repellent should therefore not be used on children under 3 years old, and only be used with care on older children. If you have to use insect repellent on children, rub it onto their clothes and not onto their skin.

Sun cream

Too much sunlight can cause cancer. The smaller the children are, the more susceptible they are to sunburn. You should therefore be careful when it comes to exposing small children to direct sunlight. Children can be sunburnt after just 10 minutes if they have no form of protection at all. Sunhats and light clothing provide good protection against the sun. Otherwise choose a high factor sun cream, preferably 30 or higher. Apply the lotion generously to children at regular intervals. Please also see the section on soaps, shampoos, and creams.

SunCare
kids
LONG-LASTING
HØY
SOLØMFINTLIG HUD
SPF
40

CLOTHING AND EQUIPMENT

Clothing and equipment made from textiles

Clothing and other textiles may contain residues from dyes, pesticides or formaldehyde. Wash new textiles before use. This will get rid of most chemicals.

Jewellery, buttons and zips

Jewellery, buttons and zips can contain the allergenic metal nickel. The more nickel given off, the greater the risk of developing an allergy. There are therefore rules about how much nickel can be given off. Once one has become allergic, even skin contact with a doorknob can result in a rash. Ask in the shop if the product is nickel free. If the shop cannot answer you at once, they have a duty to make further enquiries on your behalf.

WHEN ADULTS USE CHEMICALS

FACT:

Choose ecolabelled products.

Chemical substances and products can be found in most homes. There are washing agents, metal polish, rust remover, paint, glue, varnish, solvents, ski cleaning agents, lighter fluid and perhaps even pesticides and rat poison. All of these can be dangerous if they are used wrongly. The fewer dangerous chemicals you have, and the more securely you store them – the safer it is for children and the better it is for the environment.

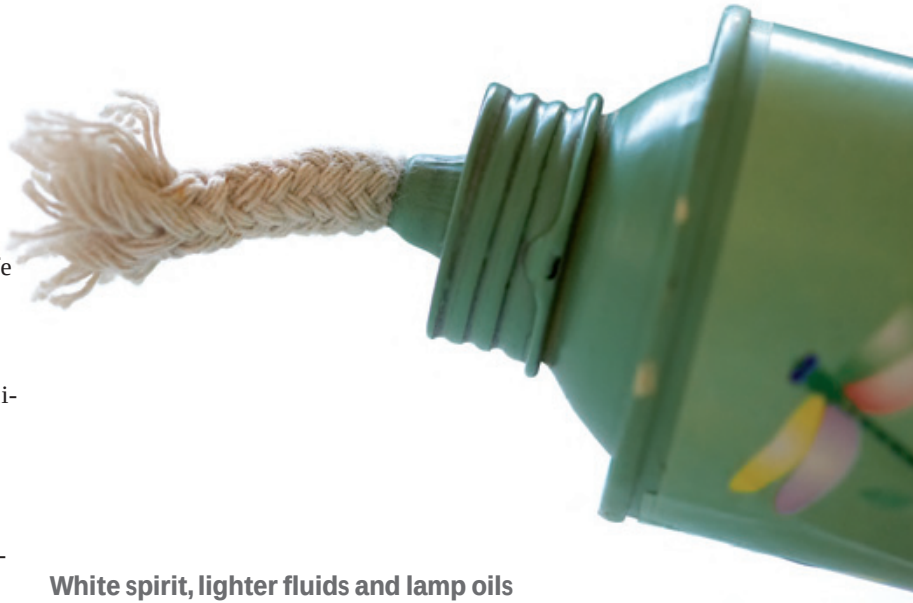
The most dangerous chemicals have to be labelled with a danger symbol on an orange background. You can read more about these on page 24. All products that have danger symbols must be stored out of the reach of children. Even bottles with child safe twist caps are no guarantee that children will not manage to open them. Liquid chemicals present a serious risk of acute harm to health. More than half of all calls to the Poisons Information Centre (called *Giftinformasjonen* in Norwegian) concern the swallowing of petroleum products such as lighter fluid, fuel and solvents. Always read the instructions and ensure that the chemicals are used properly. Also ensure they are stored safely.

Cleaning agents

Cleaning with chemical agents will always leave residues. There are products that lessen the need for chemical agents. Cloths, mops and other equipment made from microfibres utilise static electricity and collect dust and dirt without the use of washing agents. Do not use greater doses of washing agents than necessary.

Washing clothes

Washing agents for washing clothes contain many different chemicals with various functions. In addition to the chemicals whose job it is to clean the clothes, many washing agents contain less necessary chemicals, such as perfumes. Perfumes in washing agents can be allergenic. The same applies to the chemicals found in softeners. Softening clothes is a form of chemical treatment that leaves chemical residues on the clothes.



Child safe caps

Many chemicals that are hazardous to children's health are supposed to have child safe caps. These are, however, no guarantee that children will not manage to open the bottle. It may just take longer. Remember to screw the caps on tightly after use, and store chemicals in safe places.

Insecticides and herbicides

Chemicals that are used to combat insects, weeds and fungi can also be harmful to people. When one uses such chemical products in your house or garden, small amounts of the toxic chemicals will be left behind after their application for a longer or shorter period of time. Read the instructions carefully and store chemicals out of the reach of children.

White spirit, lighter fluids and lamp oils

These products can be fatal if they are swallowed and get into the lungs. Oil lamps with loose wick holders, loose sitting wicks, or refilling holes without proper caps are therefore banned. Due to the danger of lung injuries, children who have drunk lamp oils, lighter fluids and such chemicals should not be made to vomit.

Dispose of unsafe oil lamps!

Paint

Paint contains many different chemicals. Some of them can be harmful to a person's health. Choose paint that is ecolabelled if possible. Carry out painting work when children are not inside and ensure good ventilation. If you are going to leave brushes to soak in white spirit, cover the container with a plastic bag and place it out of the reach of children.

Woodwork

Wood dust from sawing and polishing is not good for the lungs – especially if the material is chipboard that can contain the allergenic formaldehyde, or if the materials are painted or varnished. Sawing and polishing should preferably take place outdoors. Wear a dust mask if the sawing or polishing is going to take place indoors.

Cars, petrol and antifreeze

Petrol cans, antifreeze solutions, oils and other car care products must be stored out of the reach of children. Ingesting antifreeze solutions can result in serious harm to a person's health.

WORTH NOTING

Hazard labelling is a statutory requirement. Some products such as toys have to be CE labelled. This is the manufacturer's guarantee that the product complies with statutory requirements. Ecolabels are labels that are voluntarily applied by manufacturers to show that the products satisfy a scheme's requirements. Avoid products displaying hazard symbols and choose products that are made for children. Read the instructions, adhere to age limits and ensure they are used properly.

MILJØSKADELIG

Dangerous for the environment
Spills may represent a danger to the environment.

MEGET GIFTIG

Very toxic
Tiny quantities may result in chronic injury, hazardous poisoning or death.

GIFTIG

Toxic
Small quantities may result in chronic injury, serious poisoning or death.

ETSENDE

Corrosive
Contact may result in permanent injury to skin, the throat or eyes.

HELSESKADELIG

Harmful
Relatively small quantities may result in chronic injury, poisoning or death.

IRRITERENDE

Irritant
May cause inflammation of the eyes, skin or airways.

EKSTREMT BRANNFARLIG

Extremely flammable
Easily catches fire even at low temperatures.

MEGET BRANNFARLIG

Highly flammable
Easily catches fire at room temperature.

OKSIDERENDE

Oxidising agent
Powerful oxidiser when in contact with other materials. May result in fire.

EKSPLOSIV

Explosive
May explode in contact with fire or in the event of an impact or friction.

The Swan ecolabel is the Nordic ecolabel. The label means that the product is among the most environmentally friendly within its product type. The Swan ecolabel can be found on products such as washing agents, soaps, car care products and floor care products.

The CE label is a common EU label that can be found on many types of products. All toys intended for children under the age of 14 must bear this label. The CE label means that the manufacturer guarantees that the product complies with statutory health and safety requirements. It does not mean that the product has been inspected by the authorities.

The flower is the EU's ecolabel and means that the product is among the most environmentally friendly on the market within its product group. The label can be found on paints and textiles, among other things.

The finger text symbol can be found on cosmetic products for which there are special precautions that must be adhered to when they are used. Where there is no room on the product, information details should be stated on a label or in an enclosed leaflet. You can also ask the sales assistant to see the information in the shop.

FIND OUT MORE

In the event of accidents

Call 113 or the Poisons Information Centre (called *Giftinformasjonen* in Norwegian) directly on: Tel.: 22 59 13 00 (24 hour service).

The Poisons Information Centre

The Poisons Information Centre is open 24 hours a day and is staffed by experts who will provide you with advice about what you should do if someone has ingested hazardous substances. The more information you can provide about what has happened, the better the help you will receive. If the poisoning is due to a chemical, it will be an advantage to have the product's packaging to hand when you call. You can find more information about chemicals, medicines, foodstuffs, poisonous plants and more on: www.shdir.no.

The Norwegian Pollution Control Authority (SFT)

The Norwegian Pollution Control Authority (SFT) is responsible for enforcing the regulations that apply with respect to the classification and labelling of hazardous chemicals, noise and the chemical content of toys, children's products, playground equipment and other consumer products.
Website: www.sft.no. Tel.: 22 57 34 00.

The Directorate for Civil Protection and Emergency Planning (DSB)

The Directorate for Civil Protection and Emergency Planning (DSB) is responsible for ensuring that products and services on offer involve a satisfactory degree of safety such that they do not represent a risk to consumers. This includes, among other things, requirements concerning the functionality of toys and equipment intended for children.
Website: www.dsb.no. Tel.: 33 41 25 00.

Hazardous products

SFT and DSB have information on their websites about hazardous products, including both products that are sold in Norway, and products found in other European countries and that can be found on the market here.
Visit www.sft.no or www.dsb.no.

Health clinics and chemists

Ask the staff if you have any questions. They will also know where you can find further information. You will also find a lot of information leaflets about toxic plants, the safe use of medicines, and much more at health clinics and chemists. Medicines that are going to be thrown away should be handed into chemists.

The Norwegian Food Safety Authority

Food and body care products such as cosmetics, soap and sun creams fall under the responsibility of the Norwegian Food Safety Authority. The regulations are intended to ensure that when products are used normally they do not constitute a danger to health. As with food, body care products are automatically banned if they prove to represent a risk to health.
Website: www.mattilsynet.no. Tel.: 06040.

Swan Ecolabel

Information about ecolabelled products and information about the Swan ecolabel.
Website: www.ecolabel.no. Tel.: 24 14 46 00.

Environmental Information

The Environmental Information Act gives everyone the right to demand information from both public and private enterprises concerning factors that are of significance as regards the environment.

The Product Control Act gives everyone the right to obtain information about products that can cause harm to people's health or the environment. Information can be demanded from dealers, wholesalers, importers, producers or responsible authorities. In other words you have a right to know what you are buying and surrounding yourself with. You can read more about your right to environmental information on the Ministry of the Environment's website: www.miljo.no.

Green Living

Green Living offers environmental tips to consumers and you will find a broad range of information for people who want to include environmental considerations in their daily lives. Website: www.gronnhverdag.no.

Chemicals in Children's Everyday Lives

This brochure is published by the Norwegian Pollution Control Authority (SFT).

The text was written with expert help from the Norwegian Food Safety Authority.

The photos of chemical products are intended to be illustrative.

The text does not refer to specific products.

The brochure is based on "Chemicals in children's lives" published by the Danish Environmental Protection Agency.

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Production: www.kursiv.no

Children are exposed to chemicals from products of various kinds 24 hours a day, every day. Some of these chemicals are harmless, while others may be harmful. Children are especially susceptible to chemicals.

For example, they can easily develop allergies. They cannot choose to protect themselves from chemicals that may harm them. These sorts of choices have to be made by adults. But how should we proceed to ensure we err on the side of caution?

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This brochure provides tips for both children and others who work with children about what is what: what sort of products are safe, what you should use with caution – and what it would be wisest to avoid.

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