



Children & Chemicals

in the Nordic countries

A report from the Nordic Council of Ministers



norden

Chemicals in everyday life from the point of view of children

Introduction

In January 2003, the Nordic Council of Ministers of the Environment organised a seminar on "The Environment and Health in Nordic Cooperation". Among the topics discussed, "Children and young people as especially susceptible groups" was specifically highlighted. In recent years this topic has attracted world-wide attention.

Limited information is available on the exposure of children to different chemicals. Children are regarded as a susceptible group, warranting special consideration with regard to risk assessment. The chemicals and environmental authorities in the Nordic countries work separately and jointly on spreading information targeted at both young families and other groups who have children in their care. The information is partly aimed at making sure that parents and other adults keep and handle chemicals properly and choose less dangerous alternatives in places where children spend time.

The Nordic Chemicals group, which is a working group subordinated to the Nordic Council of Ministers of the Environment, wishes to present an overall picture of how the Nordic countries consider that chemicals should be handled in the vicinity of children starting from how products are chosen to the time when hazardous chemicals waste is destroyed or disposed of. This information brochure is based on existing material produced by the Nordic countries in different contexts.

The work that is carried out is important, even though there are still some large knowledge gaps regarding the effects of chemicals. However, there is sufficient knowledge to give recommendations and advice. This brochure is published to provide inspiration and ideas for others in their equivalent efforts to spread information in order to lessen the exposure of children to hazardous chemicals.

Dangers of chemicals

...to health

Some chemicals can irritate the skin and eyes and cause hypersensitivity (allergy). If used incorrectly, the chemicals can also cause symptoms of poisoning and may even have long-term effects. The side-effects, and how severe these side-effects are, depend on which chemical and how much of it a person is exposed to, whether exposure has taken place by swallowing, skin contact or inhalation and whether exposure has occurred repeatedly. Some chemicals may also be flammable or explosive.

The group at risk of accidents due to poisoning is small children (aged between about six months and five years) who learn about their surroundings by putting everything they can get their hands on in their mouths. Experimenting with different types of intoxicants and narcotics increases the risk of accidents due to poisoning among young people during puberty. Among adults, hazardous situations arise as a result of careless handling of chemicals. Alcohol, medicines and carbon monoxide cause almost all cases of poisoning, while other types of chemical poisoning are quite rare. If chemicals are used sensibly and the instructions on the pack are followed, the risk of minor accidents is also lessened.

...to the environment

The chemicals that create the greatest problems for the environment are the ones that do not break down or that break down slowly in the environment and the ones that accumulate in or are toxic to organisms. Chemicals of that type are also used in the household. Mercury in strip lights, thermometers for taking body temperature and some batteries, cadmium in small storage batteries, phosphates and chlorine compounds in detergents and cleaning products and many pesticides and wood preservatives are examples of chemicals that are harmful to the environment. From the environmental point of view, it is particularly important that chemicals are disposed of properly. Chemicals that have ended up in the environment may enter the human body through food, drinking water or inhaled air.

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Nordic Council of Ministers and Nordic co-operation. The Nordic Council of Ministers is the co-operative body of the Nordic governments and ministers, while the Nordic Council is the forum for members of parliament. The Nordic co-operation involves Denmark, Finland, Iceland, Norway and Sweden, together with the autonomous areas of the Faeroe Islands, Greenland and Åland. The area has a population of about 24 million and seven official languages.



SKARA, TUESDAY, 9:47 A.M.

Vendela draws a house

This is Vendela. She is three years old and attends day nursery. Today, she and her friends have been asked to draw houses. Almost the whole time she uses materials that contain chemicals: chucks, pens, paints and glue. At the day nursery there is also modelling clay, playdough, slime etc. and toys made of plastic, several of them soft plastic. At home she has electronic toys, some things filled with liquids and a couple of model kits.

Chalks, pens, paints, glue

It goes without saying that children have to be able to draw and paint, cut and stick without their health being endangered. The majority of all the paints and glues intended for children are based on water and not on solvents, and that means that they are relatively safe. A possible risk with water-based products is that they contain preservatives that can cause allergies, but water-based is far preferable.

Do not let children overdo it when painting their own bodies with finger paints or similar materials. It is certainly fine for them to do it once in a while, but a child who is painted as a tiger or spaceman all day long may possibly be at risk of developing an allergy to preservatives or pigments.

Oil paints of the type that artists use are not suitable for children. Firstly they may contain toxic pigments and secondly turpentine is normally used as a solvent. Acrylic paints may be an alternative for slightly older children who want to do “proper painting”.

Modelling clay, playdough, slime

Modelling clay, playdough and what is known as slime often consist of plastic with varying quantities of additives. Some of them are made of PVC and may contain hazardous phthalates. Modelling clay and playdough should not be used by small children under the age of 8 years (CEN standard), who put things in their mouths and often suck their fingers.

Toys made of soft plastic

Plastic toys enter a child’s life from early infancy. Babies like to suck and chew on teething rings and other soft plastic objects. Older children are surrounded by building blocks, cars, boats, dolls and animals and all manner of other things. Many toys are made of PVC plastic with added stabilising and plasticising agents. Some of these agents are harmful to the environment and health. Some may migrate from the toy if the child puts it in its mouth and sucks on it. This is the case, for example, for phthalates, which are no longer allowed to be present in toys that are intended for children less than three years of age and are capable of being put in the mouth. But as babies are able to put most things in their mouths, ask in the shop if the toy is made of PVC, even if you are shopping for your older children.

Phthalates are released particularly when small children bite or suck on a toy. Toys and other articles for young children under three years of age must not contain phthalates.

This rule also applies to products that are not directly intended for children but the appearance of which is appealing to them.

The CE mark

Producers and toy importers are responsible for ensuring that toys do not contain substances in dangerous quantities that can cause harm to children when they use the toy in the “normal” way. But neither may the toy be dangerous if children use it for a purpose other than its intended use, if they put it in their mouths or suck on it.

Common EU rules stipulate that toys for children under 14 years of age must be identified by what is known as the CE mark. The CE mark is the producer’s or importer’s way of indicating that the product complies with the health and safety requirements laid down in regulations on toys. If there are special safety considerations, for instance that children under three years of age must not use the toy, this must be made clear by wording in the language of the country concerned.

CE-marked toys are only allowed to migrate small quantities of substances such as lead, mercury and cadmium if ingested.

TIPS

Electronic products

- Switch off transformers when electronic equipment is not in use.
- Ensure good ventilation every day, particularly in smaller rooms such as children’s rooms and work rooms.
- Make sure the electronic units are cleaned thoroughly. Some chemicals bind onto the dust in the unit.
- Buy ecolabelled products. There is not a wide selection, but PCs carrying environmental labels are now available. Buying one means you avoid brominated flame retardants in the plastic parts, for example, and you get a product that is energy-efficient.

Electronic toys

Computers and games consoles are now a natural part of everyday life for children. The casings of these products generally contain flame retardants to make them less flammable. But many flame retardants are very harmful to health and the environment. When the computers and consoles are used, they may release small quantities of flame retardants into the air. The risk is greatest when the unit is new. It is therefore a good idea to leave a new unit switched on in a well-ventilated room for the first week.

Objects filled with decorative liquids

Mugs, drinking glasses and key-rings with decorative liquids may contain mineral oils. If these objects disintegrate and children swallow their contents, they may be affected by what is known as chemical pneumonia. The use of mineral oil or other organic solvents with this effect is therefore not allowed in decorative liquids in the EU.

Model kits

Building models of cars, aircraft and boats demands manual dexterity, ability to concentrate and reading skills. It therefore goes without saying that toys of this kind must not be given to small children. But make sure they don’t come across glue, paint or other chemicals belonging to older brothers and sisters. And even older children many need some supervision to make sure they do not sit with their noses over the tins of paint in unventilated rooms. Paints and glues for toys of this type almost always contain solvents!



ÖRNSKÖLDSVIK,

WEDNESDAY, 11:04 A.M.

Hugo builds a sand-castle

Hugo likes being outdoors. But even outdoors life is not free from chemicals. His mum often rubs suncream onto him, and some summers she also puts insect repellent on him. Many items of playground equipment also contain chemicals. And his sandpit is made of wood that has been pressure-impregnated.

Sandpits and playground equipment

There are some chemical substances that merit special attention in the garden or playground.

Railway sleepers

In the past, old railway sleepers that were impregnated with creosote were used for sandpits. Creosote is a tar-like oil that can irritate the skin and cause cancer.

Although the sleepers are thirty to forty years old, the creosote can be washed out into the soil around the sandpit and into the sand inside the sandpit. On very hot summer days the sleepers may also “sweat” and release fumes that are dangerous to inhale.

Creosote-impregnated sleepers are banned in playgrounds and for other recreational purposes. It is now possible to obtain sleepers made of elm or larch, for example, which are not impregnated. These can last for up to ten and fifteen years respectively in contact with soil.

Telephone poles

Old telephone poles were also used in the past for sandpits and playground equipment, such as climbing frames. Like railway sleepers, these may be impregnated with creosote or with products containing arsenic. Use of these poles in playgrounds and for other recreational purposes is now prohibited.

Alternatives to pressure-impregnated wood

Pressure-impregnated wood is not recommended for sandpits, because the chemical substances are washed out into the sand. Instead, use self-impregnated heartwood (the innermost part of

the tree trunk) of larch which can last for ten to fifteen years in the ground and heartwood of oak, which can last for fifteen to twenty-five years in the ground.

Playground equipment that is in contact with soil, such as weight-bearing posts, swings, climbing frames, towers and other wooden structures, and equipment that has to last more than fifteen years, should be made from heartwood of oak or larch.

Building a sandpit – what wood to choose

Avoid pressure-impregnated wood, as it often contains metals such as copper, chromium and arsenic that slowly seep out. Wood of this kind is, in fact, only needed in extreme conditions or if the structure has to last up to 40 years. And sandpits are usually due for demolition long before then.

Strengthen the wood instead by oiling it regularly or choose a wood that is impregnated without heavy metals.

Do-it-yourself work in progress – not a playground for children!

Do not leave brushes to soak in solvents where children can reach them. Cover with a lid or plastic bag. White spirit, paint, varnish and sprays containing organic solvents should not be used in rooms where children spend time.

Don’t burn impregnated wood yourself!

It is difficult to see the difference between old impregnated wood and non-impregnated wood. If in doubt, treat fences, trellises etc. as though they were impregnated. Contact your local authority for information about where to leave the wood so that it can be burnt safely.

RECOMMENDATIONS

Mosquito and flea repellents

- Keep pesticides, including mosquito and flea repellents, out of the reach of children.
- Follow the directions for use and the instructions on the label closely.
- Do not use flea repellents in places where a child has to spend time or often goes.
- Do not use mosquito repellents on children under three years of age. Put them under a non-impregnated mosquito net instead.
- Use mosquito repellents where the insects bite most often. Do not apply too often.

Suncream

- Do not let children stay out in the sun unprotected and do not allow small children to be directly exposed to the sun at all.
- Avoid the mid-day sun between noon and 3 p.m.
- Light summer clothing and a small hat provide good protection for children who are playing in the sun.
- Shade is good: bring it with you, if necessary, in the form of a sunshade.
- Use a safe suncream and preferably a suncream with a high sun protection factor, i.e. around 20.
- Use a suncream with a physical barrier for very small children.
- Remember also to check whether the cream is waterproof or whether children need to have another layer of cream applied after they have been in the water.

Mosquito and flea repellents

If flea repellents are used on pets, it is important to clean up thoroughly after treatment. Even if it is necessary to spray where the pet goes, do not spray places where the child has to spend time and would consequently come into direct contact with the product. This means, for example, in bed, on a sofa or on accessible floor surfaces.

With regard to mosquito repellents which have to be in close contact with the skin, apply them only to places where the insects most often bite, that is to say on the ankles and other bare areas. If the skin is irritated, stop using the repellent. Do not use insect repellents on children under three years of age.

Suncream

When children play outdoors in the summer, it is important to protect them against sunburn.

Sunburn is a painful experience in the short term, but in the long term it poses a risk of developing skin cancer, which is one of the most aggressive forms of cancer known.

Suncreams can be broadly divided into two types: suncream with a chemical UV filter where the filter penetrates the skin and protects chemically, and suncream with a physical barrier, where the protection is achieved by the outer surface of the skin being covered.

Using suncreams with a physical barrier is recommended particularly for very small children. If it is not directly apparent from the packaging that the cream provides a physical barrier, the list of ingredients will show that it contains titanium dioxide.

There is now no known risk associated with suncreams, and they can therefore be used in the recommended quantities.

RECOMMENDATIONS

Pressure-impregnated wood

- Existing sleepers and telephone poles impregnated with creosote should be replaced the next time a playground is renovated. Until then, the sand in the sandpit should be changed every year.
- Existing sleepers used as a place to sit alongside the sandpit, for example, should be covered with planks to prevent skin contact.
- The sand in sandpits made of wood impregnated with products containing arsenic should be replaced once a year.

Helgi gets a new room

Helgi has been waiting for two long weeks. He has been allowed to play in the living room and sleep with his mum and dad. But now, at last, his room is ready. He has been given new wallpaper, which he has been allowed to choose for himself, and his mum and dad have fitted new flooring. On the walls he has stuck luminous dolphins and has been given a lava lamp he can sit gazing at for hours on end.



Materials in the children’s bedroom

If you are converting or re-painting the children’s room, air it properly and wait a few weeks before letting your child sleep there. The younger the child is, the more important this is. New particleboard can give off formaldehyde, which causes allergy. Plastic-coated wallpapers may contain harmful plasticisers. Paints may give off substances that induce allergies.

Luminous objects

Pretty stars and other shapes that shine in the dark are fun to have on the wall in children’s bedrooms. Luminous necklaces, sometimes bought at places such as markets and festivals, consist of thin plastic tubes containing a luminous liquid. They may contain hazardous phthalates, and children therefore must not bite or chew objects of this type.

TIPS

Furniture

- Buy ecolabelled furniture whenever possible.
- Avoid furniture and other fixtures and fittings with a strong odour.
- Choose furniture with leather not tanned with chromium, polyester, wool or cotton fabric upholstery.
- If you prefer synthetic leather, buy PUR material.
- Make sure you air the room thoroughly when you have new furniture in your home.
- Ask the dealer what the furniture is treated with before buying it.

Candles

- Do not buy scented candles.
- Do not burn gel candles.
- To prevent smoking candles:
Do not position candles in a draught.
Cut the wick down.
Extinguish the candle if it starts smoking.



NYKÖPING,

FRIDAY, 5:18 P.M.

Jeppe and his mum shop for clothes...

Jeppe is four years old and needs new clothes. "My, how you're growing," says his mum, taking Jeppe and Jeppe's little sister in her buggy to buy clothes. What none of them is aware of is that most clothes contain or are treated with chemicals. New boots, a new jacket, a smart pair of jeans and two nice sweaters are what they end up with. And Jeppe proudly shows them off to his dad when they get home.

Textiles

Huge quantities of chemicals are used in the manufacturing of clothes and other textiles, and many of them are dangerous to both the environment and health. Most manufacturers of children’s clothes are aware of how important it is that no chemical residues remain in the garments. It is nevertheless sensible to follow the simple basic rule of washing all new clothes before letting children put them on.

Use a detergent that has little impact on the environment and health, look for example for the Nordic Swan. There is a small range of children’s clothes and textiles that are ecolabelled, which means that they are manufactured with less impact on the environment, and that they are not allowed to contain chemical residues capable of causing allergies. Look for the Nordic Swan and EU Flower.

Rivets, zips, clasps and other metal parts on clothing may contain nickel. Prolonged contact with nickel can lead to the development of allergy. Do not allow metal items to be in close, prolonged contact with a child’s skin if you are unsure whether they are free of nickel. There is a limit on how much nickel a metal part may release to be called nickel—safe. If you wish to be extra careful, buy a nickel testing kit at the pharmacy and check for yourself what is nickel-safe.

Clothes, towels, bedclothes etc. may be treated with preservatives that can cause allergy. Some coloured textiles may contain residues of substances that may be harmful to health. All clothing should therefore be washed before being used for the first time.

TIPS

Clothing and textiles

- Buy ecolabelled textiles. The use of many pesticides and certain chemicals that cause cancer and disrupt the endocrine system is not accepted in these products. If you cannot find products bearing the Flower label, look out for the industry label Öko Tex 100.
- Smell the clothing before you buy it, and do not buy clothes that smell of chemicals.
- Do not buy clothing containing bactericidal agents.
- Wash new clothes before using them for the first time.
- Ensure good ventilation when you bring dry-cleaned clothes home.
- Only impregnate outdoors or with good ventilation.
- Do not buy textiles with PVC (plastisol) plastic prints. Ask in the shop if it is a PVC print.

RECOMMENDATIONS

Textiles

- Wash all new clothing before use.
- Buy textiles that carry the EU “Flower” ecolabel.

TIPS

Shoes, boots and wellington boots

- Buy wellington boots of natural rubber or boots of waterproof textile rather than moulded wellingtons, which are often made of PVC. Moulded PVC wellingtons can be recognised from the fact that they are all in one piece, without being joined together at the rear.
- Do not buy waders made of PVC. They are also available in waterproof textile and neoprene rubber.
- Check the label on shoes to see what the upper, inner sole and outer sole are made of. Soft PVC is used in some shoes as synthetic leather for plastic reinforcements and in some types of soles.
- Do not buy shoes with uppers made of synthetic leather. Choose leather or fabric instead.
- Choose shoes with soles made of alternative materials, e.g. PUR plastic.

NYKÖPING,

FRIDAY, 5:43 P.M.

...and then goes to the waste management centre

Jeppe is sitting in the family car. He and his dad are on their way to the waste management station. It’s always exciting. So many things! Such exciting things people throw away! Although today they themselves are going to throw away some dangerous things. These are old left-over paint, cleaning products, pesticides and solvents his dad has been keeping in a cupboard. “We mustn’t keep these things at home if we don’t need them,” he said. It was good that he did, because now Jeppe is allowed to go on an exciting journey.

Be considerate in using chemicals!

The more hazardous chemicals are, the more important it is to follow the directions for use and warnings on the pack carefully. Note the following in all cases:

Dosage

- always according to instructions
- never exceed the dose “to be on the safe side”.

Use

- if necessary wear safety gloves and other personal protective equipment
- do not mix chemical products together unless instructed to do so in directions for use
- do not use hazardous chemicals in the vicinity of children.

Storage

- always out of the reach of children and pets, e.g. in a cabinet which a child cannot reach
- completely separate from foods and other products intended to be swallowed
- always in the original packaging so that warnings and other instructions are clearly visible. Chemicals must not be poured, even temporarily, into drinks bottles from which they may be swallowed by mistake. If the original packaging is damaged, for example, and the chemical has to be transferred to another container, remember to transfer the information on the label as well.



BERGEN,

SATURDAY, 2:33 P.M.

Else gets ready for a party

Else is going to a friend's birthday party and wants to look her best. She has a bubble-bath, washes herself thoroughly and washes her hair. She brushes her teeth, applies a skin cream and sprays her hair. Then she puts on make-up, a necklace and a plastic earring. There! Now it's time to leave the bathroom, just as her little brother spits out his soother and in his own way makes it clear that it's time to change his nappy.

Soap, cream and shampoo

Fragrances should generally be avoided in soap, shampoo and creams for children. All cosmetic products must be labelled with their ingredients, showing whether the product contains any fragrance.

There are preservatives in most body-care products, and some of them can cause allergy.

Colouring agents in cosmetics may cause allergy. They are stated as “colour index” numbers, with “CI” followed by a number in the list of ingredients.

All cosmetic products must be labelled with safety instructions on how to use them. It is important to follow the warnings or directions for use applicable to the cosmetic product.

In the list of ingredients the contents are, as a rule, described with their cosmetic names, also known as the INCI name. A full list of the cosmetic names and their correct chemical names can be found on the EU’s website for cosmetic products.
http://europa.eu.int/comm/food/fs/sc/scco/out123cm_en/pdf

Toothpaste

Toothpaste contains fluorine which, together with brushing of the teeth, protects against cavities. Small children often find it difficult to spit out and to rinse their mouths with water, and they therefore often swallow some of the toothpaste. As fluorine can be harmful to health, the quantity of toothpaste equivalent in size to a child’s little fingernail or a small pea should be used.

This quantity is sufficient to prevent cavities. This is also the case for brands of toothpaste marketed for children. They often contain the same amounts of fluorine as ordinary toothpaste.

RECOMMENDATIONS

Body-care products

- Avoid body-care products containing fragrances.
- If your child has an allergy, read the list of ingredients to make sure that the product does not contain a substance to which the child is allergic.
- Do not buy the product if it is not possible to get hold of the list of ingredients.
- Do not buy products if it is not possible to get hold of the warnings or directions for use applicable to the product.
- Use an amount of toothpaste equivalent to a small pea, and remember that brushing does half the work.

RECOMMENDATIONS

Wet-wipes

- Do not use fragranced wet-wipes for children. Use water and disposable flannels in foam rubber instead.
- It is generally only necessary to wash off with soap if your child has had excrement in his or her nappy. If so, use a mild children’s soap that does not contain fragrance.
- Take a wet flannel or disposable cloth with you in a plastic bag on trips, instead of wet-wipes.

Wet-wipes

Wet-wipes are popular both for the face and for nappy-changing. Wet-wipes contain preservatives and often fragrance. Both can cause rash and irritation eczema on sensitive skin. The packaging must show a list of ingredients if the wipe has added cosmetic substances.

Wet-wipes additionally contain small amounts of organic solvents. The solvents dry out the skin, and make it more vulnerable to other chemical substances.

Cosmetics

Many children use make-up for theatrical performances and in dressing-up games. Make-up intended for children must carry the CE mark, because it is classified as a type of toy. In addition, the make-up must comply with applicable rules on cosmetics.

All cosmetics, including children’s make-up, must have a list of ingredients, and be labelled with safety instructions for use. If your child is allergic, you should therefore read the list of ingredients and follow the directions for use or the warnings shown on the cosmetic product.

If the packaging or container is too small for a label with the list of ingredients and directions for use, it must be stated on a leaflet, label, tape or card attached to the product. If so, the container/packaging must be marked with a symbol showing an open book and a finger (the finger text symbol) or it must be stated on the product that information is enclosed with or attached to the product.

If the product is unsuitable for a label, for example soap balls or bath balls, the list of ingredients must be enclosed with the product instead.

Children’s jewellery

There are particular limits on how much nickel may be released from objects that come into contact with the skin, for example jewellery.

Soothers and nappies

Soothers can release small quantities of chemical substances. The quantities are so small that they do not in themselves pose a health problem. But as we are also affected by many other chemical substances in our everyday lives, it is a good idea to try to reduce the amount of chemical substances where possible.

Many teething rings used to be made of soft PVC plastic. Phthalates are often added to PVC plastic to plasticise the product. There is now a ban on phthalates in teething rings and other articles for children under three years of age.

Disposable nappies do not normally contain soft PVC, but old-fashioned tie pants may be made of PVC. They may therefore release phthalates, so avoid them.

Nappies that carry the Nordic “Swan” ecolabel have less impact on the environment than other nappies.

Lotion or fragrance may be added to nappies. Lotion and fragrance must be mentioned on the pack. Fragrances may cause allergy, and if nappies with lotion are used, the child’s skin is constantly exposed to chemical action.

RECOMMENDATIONS

Children’s jewellery

- Test jewellery for the release of nickel. This is easy to check with a nickel testing kit available from pharmacies.

Nappies and soothers

- Do not buy old-fashioned tie pants made of soft PVC.
- Buy nappies that carry the Nordic “Swan” ecolabel.
- Choose nappies that do not contain any lotion and fragrance.
- Scald soothers before use.

RECOMMENDATIONS

Make-up

- Avoid make-up containing fragrance: it is unnecessary and can cause allergy.
- Buy make-up carrying the CE mark.
- Do not buy make-up if it is not possible to get hold of the warnings or directions for use applicable to the make-up.
- Use moisturising cream under the make-up.
- Take care in removing the make-up: use water and soap if it is water-based make-up and cleansing cream if it is fat-based make-up.

TIPS

Toilet paper and cosmetic products

- Buy ecolabelled products when possible. If you do, you will avoid lotions, fragrances and other chemicals that cause allergies. At the same time, the product is produced in an environmentally sound way.
- Avoid products that contain fragrance. You can, if necessary, just have fragrance in certain selected products. Then you can keep a better check over how much you are exposed to.
- Read directions for use carefully before using products for the first time.

Jewellery and flooring etc.

- Use a nickel test if you want to see whether your jewellery or buttons contain nickel. Buy the test kit at a pharmacy.
- Ask about the chemical contents of ornamental objects and everyday objects.
- Buy bath curtains, vinyl flooring, gloves, vinyl wallpaper and bags in materials other than soft PVC.

Newspapers, magazines and advertising material

- Ask for ecolabelled printed material. The ecolabels lay down many requirements for printed material. If the printed material is ecolabelled, you avoid a wide range of unpleasant chemicals. There are requirements relating to inks, glues and other surface treatment on ecolabelled printed material.
- If exposure to the printed material causes you to suffer symptoms, you can hang it up to air and provide good ventilation in the home.



ODENSE, THURSDAY,

8:47 P.M.

Jesper goes to bed

Jesper has had a hard day at school. He has been busy learning how to write, and at home he and his dad have been practising the letters. But now he is tired and wants to go and lie down. As he snuggles down in his bed, he is surrounded by chemicals in his bedclothes and mattress.

Mattresses

Dangerous chemicals are used in manufacturing foam rubber mattresses. They are supposed to be removed from the finished mattress, but there have been occasions when this has not worked. If you think that your child’s new mattress has a “chemical” smell, it is a good idea to leave it to air for a few weeks before you let your child sleep on it.

Bedclothes

It is sensible always to wash new sheets, duvet covers and pillow-cases before using them. New textiles may contain residues of the chemicals used in manufacturing the fabric or to prevent creases in transport.



LAHTI, MONDAY, 6:39 P.M

Leena helps with the washing-up

Leena is a keen helper. She likes helping out in the kitchen. She is a wizard at doing the dishes, washing and cleaning. Sometimes she helps when the car needs washing too. Once she was even allowed to pour new washer fluid in, but her dad held the bottle with her. She also likes painting and mending things when her mum or dad or doing that. Last summer she painted nearly a whole wall herself – at any rate as far up as she could reach. And she fixes things in the garden too. But her mum and dad have told her that she must keep away when they are using herbicides and pesticides.

Washing, cleaning, doing the dishes

Detergents are dangerous if swallowed, so keep packets away from young children. But bear in mind the risk of allergy too. Most detergents contain fragrances which can sometimes cause allergy. Liquid products may also contain preservatives.

Rinsing agents pose an increased risk of allergy because the product stays in clothing and consequently comes into direct contact with a child’s skin. Think about whether you really need to use rinsing agents.

Dishwasher detergents generally irritate the skin and carry an orange warning label. Keep them somewhere safe.

Cleaning products, floor polish and similar products should be kept out of the reach of children. Remember to keep an eye on the bottles even when you are using them, and screw the cap on properly. Make an effort to reduce your use of cleaning chemicals, use microfibre cloths and mops instead. This reduces the impact on the environment.

Most children like to help out in the kitchen, workshop or outside in the garden. When children lend a hand, deal with the dangerous jobs yourself and leave the non-dangerous work to the children.

Cleaning products

Many cleaning and household products are often left in places where they are easily accessible, for example under the kitchen sink or in low-level cupboards.

All cleaning and household chemicals should be stored out of the reach of children!

If the product carries a label with an orange hazard symbol, it is particularly important that it is stored out of the reach of children, ideally in a locked cupboard. Although there should be a childproof closure on many products of that type, this is no guarantee that children cannot open the packaging. Childproof closures merely mean that it takes longer to open them.

Painting, mending and fixing

Drain cleaners that contain caustic soda are highly corrosive and potentially lethal. They are generally not needed in the home. Sink blockages can be fixed mechanically, for example using a drain auger. If that does not help, call a plumber.

Many products intended for oven cleaning are corrosive; try cleaning your oven with soap instead!

Lamp oil

Lamp oil and paraffin have caused several cases of poisoning when children have been tempted to drink the liquid. The sale of harmful lamp oils that are coloured is now prohibited. There must also be a warning on the packaging, urging the user to keep the lamps out of the reach of children.

White spirit, paints, varnishes and sprays containing organic solvents should not be used in rooms where children spend time. Do not leave brushes to soak in solvents where children can get at them. Cover with a lid or plastic bag.

TIPS

Tips on detergents, cleaning products and rinsing agents

- Read the list of ingredients and avoid detergents and cleaning products containing fragrances and colours.
- Choose ecolabelled detergents and cleaning products. You will then avoid substances such as chlorine, optical brighteners and some surfactants.
- Choose detergents containing sodium percarbonate as bleach when buying detergents for white clothing. You will then avoid chlorine and optical brighteners.
- Use the correct dose.
- Avoid rinsing agents where they are not strictly necessary due to static electricity.
- Do not wash at 90°C – this does not make the clothes cleaner, and is not necessary for dealing with bacteria in the clothing after washing.
- Avoid cleaning products containing chlorine.
- Avoid contact with the skin as far as possible and avoid spray products, as you can easily inhale small quantities in use. Follow the safety instructions on the label carefully.
- Always store cleaning and household products out of the reach of children.

Cars, tractors and lawnmowers

Washer fluids for car windscreens may contain methanol, which is toxic. Even small quantities that are inhaled, swallowed or come into contact with the skin may lead to symptoms such as nausea, dizziness and disturbed vision. One spoonful of washer fluid containing methanol can cause blindness if swallowed. Washer fluids must always be kept out of the reach of children and in their original packaging. If the washer fluid contains at least 10% methanol, it is classified as a hazardous chemical which must be kept in a container with child-resistant fastening.

Oil products may only be used for their intended purpose. Never use oil products such as petrol or diesel for cleaning or washing. Petrol is only intended for use as an engine fuel. Petrol contains harmful hydrocarbons and benzene, which causes cancer. Inhaling petrol fumes can cause dizziness and nausea and

produce symptoms of irritation. Petrol can also be absorbed into the body through the skin. Lead-free petrol is just as harmful to health as leaded petrol. Petrol must never be sucked with a tube as there is a risk of it ending up in the lungs (aspiration). This can lead to pneumonia and even cause death.

Petrol also poses a risk of fire. It readily turns to gas indoors, and the gas produced is highly flammable. Petrol must be stored in a cold, well-ventilated place where there is nothing else that is flammable. Petrol effectively dissolves many materials. It is therefore important to keep petrol in storage containers that are approved for the purpose, durable and tightly sealed.

Even a small amount of oil can destroy groundwater quality and lead to other environmental damage. They must never be poured down the drain.

Control of weeds and insects

Pesticides and biocidal products are used to eradicate weeds, control fungal diseases and pests and get rid of flies and other airborne insects. Products that are used to protect plants are known as pesticides.

Many pesticides and biocidal products are harmful to both health and the environment.

Wood preservatives, used to protect wood against rotting and insects, and antifouling paints, used to prevent marine organisms from attaching themselves to the bottoms of boats, are examples of biocidal products. The active substances in antifouling paints are water-soluble and may cause harm to aquatic organisms.

Natural control is often sufficient in kitchen gardens, such as hoeing weeds or covering the soil. Indoors it is also possible to control house-flies, horse-flies and other irritating insects with flypaper and swats.

Unused pesticides and biocidal products are problem waste and should be taken to collection centres for problem waste.

RECOMMENDATIONS

Cleaning products

- As far as possible, choose cleaning and household chemicals that do not carry a hazard symbol.
- Store all cleaning and household chemicals out of the reach of children, for example in a locked cupboard.
- Use household and cleaning products that carry the Nordic “Swan” ecolabel or the EU “Flower”. These products have less impact on the environment than other household and cleaning products, but should obviously also be stored out of the reach of children.

RECOMMENDATIONS

Hobby products

- Ensure good ventilation during and after use.
- Read directions for use and the safety label thoroughly before use.
- Choose glue with the Swan ecolabel or a glue with the Danish ABCD labelling system (products with the A label are the best choice). Ingredients harmful to the environment and health are restricted in these products.
- As a general rule, choose water-based glue, which you can use for most purposes. This is also the case if you have to glue concrete or wood surfaces, carpets, linoleum or cork. Only on plastic, rubber, ceramic or metal may it still be necessary to use glues containing organic solvents.
- Choose paints that carry the Flower ecolabel.
- Make sure the products carry hazard labels.

TIPS

Tips on home maintenance

- Choose ecolabelled or water-based products when undertaking do-it-yourself projects indoors and outdoors. Water-based products can be used for most things today – whether you are painting, varnishing or gluing. Only on plastic, rubber, ceramic or metal may it still be necessary to use glues containing organic solvents, for example.
- Find alternatives to paint and varnish removers and spray paints with organic solvents. The paintwork on smaller objects can be rubbed off. For larger objects such as windows, panels or doors, you can use a heat gun or burner.
- If you use spray paint, wear a mask or work outdoors.
- Always read the label and follow the instructions.
- Ensure good ventilation when working indoors and wear gloves.

Tips on pesticides and household chemicals

- Always read the label and follow the instructions.
- Read all the safety instructions on the packaging.
- Only use products approved for the purpose you are going to use them for.
- Wear gloves, so that skin contact is avoided.
- Ensure good ventilation during and after use when using household chemicals.
- Always store the products out of the reach of children.
- Use mechanical pest control as far as possible.

Hazard symbols and ecolabels in the Nordic countries:



Very toxic or toxic product. Can cause irreversible or potentially fatal harm by inhalation, in contact with the skin or if swallowed.



The Swan, is the official Nordic ecolabel for products and services. Extensive environmental requirements are set and checks are made on products to make sure they comply.



Corrosive product. Can cause burns on skin and irreversible harm to the oesophagus and eyes.



Harmful or irritant product. May cause harm by inhalation, in contact with the skin or if swallowed. Some products may cause serious harm after prolonged use.



The Hand in Book symbol has to appear on a cosmetic product if further information is available elsewhere. This may, for example, be an attached leaflet, label, tape or card. The information concerned may be, for example, a list of ingredients, warning label or user information.



Environmentally hazardous product. May harm the environment in the long or short term.



Öko Tex, label for textile products according to international standard that guarantees the user that a garment does not contain harmful substances or residues.



Extremely or very flammable and readily ignitable product. May explode on ignition.



Explosive product, must be handled with extra caution.



EU-Flower, The EU's common European ecolabel. Works in the same way as the Swan label above.



Oxidising product, must be handled with extra caution.

How we provide information
in the Nordic countries



Chemistry in the everyday world
of children, Danish Environmental
Protection Agency, Denmark



Chemistry with consideration,
Danish Environmental Protection Agency,
Denmark



The consumer and chemicals,
Finland



Chemicals in the everyday world
of children, Swedish Chemicals
Inspectorate, Sweden



Building and painting wisely,
Swedish Chemicals Inspectorate,
Sweden



Everyday chemical world of children, Norwegian
Pollution Control Agency, Norway



Safe for children? Fridge magnet,
Iceland

The Nordic Council of Ministers issues a number of publications and reports on the environment – including on chemicals. Some publications have been written for the general public like this brochure or, for example, the brochure on ozone-depleting substances entitled “Protection of the ozone layer — update 2002”.

Many other publications are thematic or working reports, primarily written for

specialists. The reports typically contain a presentation of background material and results that have emerged from a project financed by the Nordic Council of Ministers. Several of the reports are very useful as Nordic contributions to the international work on chemical issues.

A listing of these publications can be found on the website of the Nordic Council and Council of Ministers. This website also

contains an order form to be used for ordering reports or requesting free material, or else material can be downloaded free of charge directly from the Internet. There is also a list of bookstores that sell the Nordic publications in a number of countries, including outside the Nordic region. Nordic Council and Council of Ministers website: www.norden.org under Co-operation, Environment and Publications.

Find out more!

Nordic Council of Ministers: www.norden.org

Nordic Chemicals Group: www.norden.org/miljoe/sk/kemikaliegruppen.asp

Denmark:

Ministry of Environment: www.mim.dk

Danish Environmental Protection Agency: www.mst.dk

Finland:

Finnish Environmental Institute: www.ymparisto.fi

Ministry of Social Affairs and Health: www.stm.fi

National Product Control Agency for Welfare and Health: www.sttv.fi

Iceland:

Environmental and Food Agency of Iceland: www.ust.is

Norway:

Ministry of Environment: www.miljo.no

Norwegian Pollution Control Agency: www.sft.no

Sweden:

Swedish Chemicals Inspectorate: www.kemi.se

Swedish Environmental Protection Agency: www.naturvardsverket.se

The Nordic Chemicals group, which is a working group subordinated to the Nordic Council of Ministers of the Environment, wishes to present an overall picture of how the Nordic countries consider that chemicals should be handled in the vicinity of children starting from how products are chosen to the time when hazardous chemicals waste is destroyed or disposed of. This information brochure is based on existing material produced by the Nordic countries in different contexts. Initiator: Nordic Council of Ministers