



**Chemicals in Children's
Everyday Lives**

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Chemicals in Children's Everyday Lives

Being parent is a source of incredible joy, but also of fear and anxiety. It is not always easy to know who you should listen to or how to assess all advice and discoveries. But knowledge makes it easier for you to make deliberate, safe choices in your everyday life. Although certain chemical products are not normally acutely toxic on their own, the total quantity of substances can lead to an increased risk. And because children can be more sensitive to chemicals than adults, it is a good idea to do what we can to avoid them being exposed unnecessarily.

The Swedish Chemicals Agency has been tasked by the Swedish Government with protecting children and adolescents from hazardous chemicals. We do this for example by influencing legislation in Sweden, the EU and internationally and by inspecting the products that are sold on the Swedish market.

Toys are subject to strict EU regulations. Products that are made for children today are therefore among the safest there are. Here at the Swedish Chemicals Agency, our duties include working to influence and develop the chemicals regulations in the EU's new toys directive from 2013. We are also working to influence the development of regulations governing products that are not toys, but which often end up in the hands of children.

In conjunction with the Keep Sweden Tidy Foundation, we are providing information to schools and preschools about the advantages of thinking carefully about chemicals and providing suggestions about what to do to children's exposure to hazardous chemicals in their everyday lives.

But at home, it is you the parents who make decisions. You therefore have to choose which advice you want to take on board and look at this as an aid, rather than a manual. You will not be able to protect your child against every danger out there, but you can avoid your child coming into contact with a large number of hazardous substances by, for example, getting rid of old toys made of soft plastic and putting lighter fluid in a locked cupboard.

We hope that this brochure can help you as parents and provide you with some solid suggestions you can use to protect children.



Children and chemicals

In the past fifty years, the size of global chemicals production has become over fifty times larger. Even though the chemicals legislation has been developed over the course of the same period and protects us better today than in the past, many of the products that we use every day both contain and emit hazardous chemicals.

Unborn children, small children and even adolescents can also be more sensitive to chemicals than adults. Their brains, immune system and endocrine system are not fully developed and they breathe faster and eat and drink more in proportion to their own bodyweight than adults do. Small children who are investigating their surroundings by touching and tasting things are especially vulnerable. Consequently, it is a good idea to take a close look at their local environment and attempt to avoid products that contain chemicals that may involve an increased risk.

Hazardous chemicals

Everything on the earth and in the universe is made up of chemical substances and far from all of them are harmful to us or the environment. But some chemicals may be dangerous if they are handled incorrectly. There are different types or hazardous chemicals. Those that have a direct effect and those that have a longer term impact on the body. Chemical products such as petrol, lighter fluid and sink unblocking fluid are labelled with warning symbols that are there to inform people about the risk. But other types of product such as furniture and electronics are rarely labelled with any information about how the chemical content could affect your child. Consequently, the intention of this brochure is to provide advice about how you can minimise the presence of hazardous chemicals in children's environments.

Who is responsible?

Companies that manufacture, import and sell chemical products are responsible for ensuring their products are labelled with warning symbols. The label has to clearly state how the product is to be used in a correct way and that the product may have an impact on health and the environment. Products such as clothes, electronics and furniture may sometimes contain certain substances that the EU has agreed are of very high concern and which are therefore on the EU's list of substances of very high concern. As a consumer, you have the right to know which substances of very high concern the product contains and the seller is obliged to provide you with an answer. Page 32 contains more information about your rights as a customer.

Different supervisory authorities check that companies in Sweden comply with the legislation for various areas that may concern children and chemicals. The Swedish Chemicals Agency conducts inspections of individual chemical products that are on sale, the Swedish National Food Agency is the supervisory authority for food and anything that children may ingest via foodstuffs and the Swedish Medical Products Agency inspects medicinal products and cosmetics. More information about each of these areas can be obtained from the respective authority.





Play and learn

Children learn about the world through play and as parents, we do whatever we can to stimulate their curiosity and thirst for challenges. In shops, we can find toys that entertain and educate, both mechanical and electrical, made of plastic and wood, metal or fabric. The safety requirements for toys are now high, but this has not always been the case. There is therefore a risk that old toys and toys bought outside the EU carrying more than just nice memories.

Plastic toys

Toys made of soft plastic sometimes contain phthalates which make the plastic soft. Potentially dangerous phthalates have been banned in the EU since 2007 in products intended for children. These regulations apply to toys and other accessories for children that are manufactured in the EU or imported into the EU from other parts of the world. However, plastic toys that were manufactured prior to 2007 or you as a consumer have bought outside of the EU may still contain the hazardous phthalates.

GOOD TO KNOW! If an old toy is sticky or smells, this may be an indication that it is releasing substances that are not allowed in new toys. In that case, it is better to give the child something else to play with.

Paints, crayons and glue

Paints, crayons and glues intended for children must be water-based and therefore do not contain hazardous solvents. Oil paints and other types of hobby product that are targeted at adults should therefore not be used by children.

Make-up

All cosmetics must have a list of ingredients, but make-up products for children, such as face paints, are sometimes poorly labelled or lack a list of ingredients. Only buy products that have a list of ingredients and Swedish instructions. Also bear in mind that make-up for dolls must not be used on the skin.

Battery-powered toys

Many toys contain batteries that allow them to light up and make sounds. Old batteries can leak corrosive substances, so please ensure that the battery compartment is securely closed and that old or leaking batteries are handed over to a battery collection point. If the battery cannot be removed, you can hand in the toy to the shop. The retailer is obliged to deal with products that have built-in batteries. Bear in mind that small button-cell batteries are easy for small children to swallow. If they get stuck, they can damage the mucous membranes in the oesophagus, stomach or intestine and cause major injuries.

GOOD TO KNOW! Products that are made for children are often safer than those made for adults. That is why you should use toys that are appropriate to the age of your child.

Models and playdough

Models and playdough are often made of plastic with varying quantities of additives and should not be used by children who may put it in their mouth.

Construction kits

Construction kits to build models of cars, planes and boats are not intended for small children. Paints and glue in construction kits almost always contain solvents that can irritate the eyes and airways and cause headaches. If an older child is working with a construction kit, it is a good idea to ensure that the room is well-ventilated.



Eat and store

Whether mealtimes at home are a constant battle with mashed potatoes in the hair and peas on the floor or a delightful moment of exciting food discoveries, the kitchen is an important place for many families. Following are some suggestions and advice on how to avoid hazardous chemicals in the kitchen.

Clean water

Run the tap until it is sufficiently cold before giving it to children to drink. This reduces the risk of, for example, there being heavy metals from the water pipes in the glass. Water from the cold water tap that is not properly cold and water from the hot water tap must not be drunk or used for cooking.

Aluminium pots and foil

If you cook or store acidic foodstuffs such as sour fruits, vinegar and juice in aluminium containers, the level of aluminium in the food can increase. You should therefore avoid cooking, warming and storing these foodstuffs in pots,

trays, bottles and other containers made of aluminium that does not have a protective coating. You should not store acidic foodstuffs in contact with aluminium foil for long periods, and it is preferable for the foil not to be in contact with acidic desserts or similar in the oven.

Ceramics

Some ceramic and enamelled containers may contain heavy metals such as lead and cadmium. This applies primarily to old ceramics, for example, from a flea market and if you have perhaps bought handicrafts from an artist while on a foreign holiday. When you cook or store food in this type of container, there is a risk that heavy metals may come out of the container and end up in the food. Acidic foodstuffs such as sour fruits, vinegar and juice further increase the risk of heavy metals being released. However, newer ceramic vessels such as those that can be bought from normal shops in Sweden and the rest of the EU should be safe. This is because there are EU regulations stating that ceramics intended to come into contact with foodstuffs may not contain heavy metals.

Preserving jars and plastic packaging

Preserving jars and some plastic packaging may contain bisphenol A (BPA). Bisphenol A can also be found in various types of food container, such as individual articles for warming in the microwave, transparent sipping cups and storage vessels and hard water bottles that are used during sports. The quantity of bisphenol A we ingest via our diet is not deemed harmful to our health. As a precaution, this substance is banned in baby bottles and the packaging of food intended for children under the age of three.

Plastic dining sets and food containers

When plastic is scratched or heated, it increases the risk of substances leaking out of the plastic into the food. That's why you should recycle scratched plastic items.

Labelling with the “glass and fork” symbol – or the words “food safe” – is used for plastic products that are safe to use with food. The risk of substances being transferred from the packaging to the foodstuff increases at high temperatures and if the food is high in fat. You should therefore only warm packaging in the microwave if it has a label that indicates this is OK. Recycling symbols, for example a triangle containing a number, indicate the main plastic used in the product. You can find more information about plastic in contact with food on the National Food Agency's website, www.livsmedelsverket.se.



GOOD TO KNOW! Always use utensils and other kitchen items for their intended purpose. This reduces the risk of children ingesting inappropriate chemicals.

Dishwasher detergent

Dishwasher detergent is a chemical product that irritates the skin and eyes and may sometimes also be harmful if swallowed. Be especially careful with single portion capsules as small children can easily put these in their mouth. Dishwasher detergent must be labelled with warning symbols and should always be kept out of the reach of children.



Oven cleaner

Oven cleaner often contains caustic soda, which can cause serious burns if it is ingested or comes into contact with the skin. If it comes into contact with the eyes, it can in the worst case result in loss of vision. If you have oven cleaner at home, make sure it is stored out of the sight and reach of children. Also be aware of the warning labels and follow the instructions on the packaging when using the product.

GOOD TO KNOW! If your child has swallowed a chemical product or got it on their skin or in their eyes, call 112 and ask for poison information.

Vinegar

Vinegar in a concentrated solution of 24 % is corrosive, despite often being used domestically. It is a good idea to wear gloves when handling this liquid and be careful not to splash it in your eyes. Dilute solutions, in concentrations up to 12 %, for example in wine vinegar or vinegar essence, are powerful irritants of the skin and eyes.

Bathing and personal care

Everything from nappy changing to wound care takes place in the bathroom. This is where we philosophise among the bath-time bubbles and cry over plasters. But it is also where children learn important cleaning and hygiene routines. Routines that will probably remain with them for the rest of their lives.



Shampoo and soap

Shampoo, soap and bubble bath contain surfactants that remove dirt and clean the body and hair. But surfactants also dry out the skin. Choose mild, environmentally labelled products without perfumes in order to reduce the risk of allergies.

Toothpaste

When a child develops their first teeth, it is a good idea to start brushing them in order to keep the teeth clean and make this a routine, natural part of their everyday life. The fluoride in the toothpaste strengthens and protects the teeth against decay, but it is not good for children to ingest it in large quantities. It is preferable to use a children's toothpaste as these contain smaller quantities of fluoride than adult toothpaste. Fluoride toothpastes have to be labelled with instructions about how much toothpaste should be used for children. Follow the instruction and make sure that children spit out the toothpaste after they have brushed their teeth.



Wet wipes

Wet wipes sometimes contain perfume and preservatives that may lead to children developing allergies if they are used too frequently. When changing nappies it is therefore better to primarily use water and a paper towel or flannel. Save the wet wipes for when you are out and about and don't have access to water.

GOOD TO KNOW! Perfume can irritate sensitive skin and cause eczema or allergies. Check the list of ingredients to ensure that the product does not contain anything your child is allergic to and avoid products that do not have a list of ingredients.

Bath clay and bath bombs

These products are considered cosmetics and therefore have to have a complete list of ingredients.

Skin and sun creams

When it comes to skin creams and other products that are used on the skin, it is a good idea to avoid strongly scented products to prevent children developing eczema or allergies. This also applies to products that are marketed as natural products. Protect children from strong sun with sun hats and sun clothes. Children's skin is sensitive and if they get burned, they have a greater risk of developing skin diseases later in life. Use sun cream on any parts of the body that are not covered by clothing just before the children go outside. Use a large

dollop of sun cream and remember to reapply after bathing and towel drying. Children under the age of one should not be exposed to direct sunlight at all and therefore do not need sun cream.

Mosquito and tick repellent

Mosquitoes and ticks can be a nuisance, but bear in mind that mosquito and tick repellent can be harmful if used incorrectly and can even irritate the skin and eyes when used normally. It is better to use protective clothing on children and put the repellent on the clothes instead of the skin. Do not use repellent near the eyes or mouth and do not use it on children under the age of 3.

GOOD TO KNOW! Products that may be hazardous must be kept out of the sight and reach of children. Choose a high cupboard or a locked box for storing chemicals, cleaning products and medicines. Always store products in their original packaging.

Medicines

Some medicines can look like sweets or taste so good that children are enticed to eat them. You should therefore ensure that medicines are stored where children cannot get to them on their own. If your child has accidentally ingested medicine, you should call 112 and ask for poison information. You will then be connected to the Swedish Poisons Information Centre, while the 112 operator continues to monitor the call to send an ambulance if necessary. It is a good idea to have activated charcoal at home so that you can give this to a child right away in cases of suspected poisoning. Activated charcoal binds to the substance and prevents it being taken up by the body. However, always ask the Poisons Information Centre before giving activated charcoal as this may be inappropriate in some cases.



Hair colour

Permanent hair colour and tints contain chemicals that may cause irritation and potential burns when they come into contact with mucous membranes in the mouth, oesophagus or eyes. The earlier someone begins exposing themselves to the substances in hair colour, the greater the risk that they develop an allergy to them. That is why there is an age limit of 16 for using hair colour in the EU.



Sleeping and reading

The bedroom is more than just a place to sleep. It is also a place for dreams, fantasies and expectations. This is where we sing lullabies, tell tall tales and perhaps have a nightmare from time to time. The room often changes over the years, just like the child. Furniture is replaced, curtains are put up and new textiles are added. But new things can release chemical substances, so air out the room frequently and do not let children sleep in a room that contains a lot of electronics or which smells strongly of paint or cleaning products.

Building and painting

Expectant parents often want to prepare and make everything nice for the baby. However, bear in mind that paint, building materials and textiles usually give off the most chemicals when they are new. Even unborn children are sensi-

tive to chemicals so in the interest of safety, it is best if someone other than the pregnant woman conducts the renovations, even though the risk to the unborn child is low. It is also a good idea to complete the work several weeks before the baby is due so that there time for the space to be aired out properly.

Mattresses and pillows

When manufacturing foam rubber, certain hazardous chemicals are used that may sometimes remain in the finished foam rubber mattresses or pillows. If a new mattress smells strongly, it is good to air it until the smell has vanished. Mattresses, foam rubber pillows and mattress covers manufactured prior to 2004 may sometimes contain substances that are now banned. It is therefore sensible to replace older bedding.

Items that smell and light up

Some toys and erasers that smell strongly may contain allergens and phthalates. It is therefore a good idea to avoid strongly smelling products. Luminous necklaces, bracelets and glow sticks that are often found at markets and festivals are made of thin plastic tubes that are easily broken. They contain a luminous liquid that can cause severe irritation if it ends up in the mouth or eyes. Consequently, do not let children suck or chew on these.



Plastic flooring

Plastic and vinyl flooring may be manufactured from polyvinyl chloride (PVC) that is made soft using phthalates. PVC flooring is increasingly being made using alternative softeners. It is a good idea to ask about this in the shop before purchasing flooring. You have the right to know if the product contains any specific hazardous substance. Read more on page 32 about your rights as a consumer.

GOOD TO KNOW! Chemicals end up in dust. It is therefore a good idea to keep dust out of the rooms where small children are crawling and air them out frequently.

Clothing and other textiles

Chemicals are needed in order to produce fabrics. Chemicals can also be used in the clothes themselves, for example to colour them or in a dirt and water repellent coating. Sometimes special chemicals are also added in order to prevent clothes creasing or becoming mouldy during transport. In some cases, clothes are also treated with antibacterial substances to combat bad smells, for example. Clothing with plastic prints may also contain phthalates and heavy metals.

Some clothing contains chemical residues that can, in some cases, cause allergic reactions, especially if the fabric comes into direct contact with the skin. It is therefore a good idea to wash new clothes, bed linen, rugs, pillows, soft toys and towels before children use them for the first time, and to avoid clothing and other textiles that are treated with antibacterial substances. Environmentally labelled clothes are manufactured with a lower environmental impact and they are required to be free from certain chemical residues.

However, as there are several different environmental labels that have different requirements, it is a good idea to find out what each of them stands for. You can read more about environmental labelling on page 28.



Shoes and accessories

Shoes made of plastic and bags made of artificial leather may contain softening phthalates and heavy metals. It is often better to buy shoes and accessories made of fabric and real leather.

Light bulbs and older thermometers

Low-energy light bulbs and fluorescent tubes contain small amounts of the substance mercury, which is harmful to health and the environment. Older thermometers may also contain mercury. Exposure to small amounts of mercury on occasion is not hazardous, but it is a good precaution to avoid being exposed unnecessarily. If a light bulb or older thermometer containing mercury breaks, children should leave the room while you air it out and deal with the remains. First air the room for about 30 minutes before you pick up the remains using a piece of cardboard and then clean the floor with a damp cloth. Then place all the remains and the cloth in a glass container with a tightly fitting lid and leave it at a recycling centre for environmentally hazardous waste. Do not use a vacuum cleaner to suck up the mercury as there is a risk that the metal will be vaporised further and spread in the air. If you want energy-saving light bulbs that do not contain mercury, you can choose LED or halogen bulbs, for example. More information about the alternatives is available on the Swedish Energy Agency's website, www.energimyndigheten.se/energieffektivisering/hemmet/belysning/



Good ventilation

Some items we have at home, for example those that are treated with flame retardant, made of soft plastic or contain new chipboard, can release small quantities of chemical substances into the interior air. By maintaining good ventilation and airing frequently, you can keep the interior air cleaner and reduce the quantity of chemicals that children may inhale.



Electronics

Mobile phones, computers, DVD players and other electronic devices may contain heavy metals such as mercury, cadmium and lead. When these devices are warm, they can also emit small quantities of flame retardants that can be got rid of through frequent airing and keeping dust at bay. Do not let children screw devices apart and do not let small children put electronics such as mobile phones in their mouth. Avoid having computers, televisions and other electronics in rooms in which children sleep.

Electronics that you want to get rid of should be left at a recycling centre or returned to the shop where you bought them.

GOOD TO KNOW! All domestic electronic equipment must be CE marked as proof that it complies with the European safety requirements. Read more about CE marking on page 29.

Liquid-filled items

Liquid-filled decorative items containing coloured liquids may contain mineral oil, which may be at risk of leaking out. Children who ingest mineral oil are in danger of contracting chemical pneumonia. It is therefore a good idea to place liquid-filled decorative items such as lava lamps out of reach of children.

Tickets and receipts

Cinema tickets, receipts, parking tickets and train and airline tickets are made of thermal paper, which can contain the suspected hormone-disrupting substance bisphenol A. Consequently, do not allow children to play with these or put them in their mouth.



Jewellery and keys

Children like things that rattle and shine and it is easy to give them your house keys as a makeshift toy for lack of something else. But keys, jewellery and other metallic items may contain lead, cadmium and nickel and should not really be used as toys.



GOOD TO KNOW! Do not let children suck or bite on metal keys and jewellery as they may ingest harmful lead.

Temporary henna tattoos

When on holiday or at festivals, it may seem like a good idea to let children get a temporary henna tattoo. But bear in mind that black henna paints often contain strong allergens that may lead to life-long allergy problems and cause severe eczema. Read more on the Medical Products Agency's website, www.lakemedelsverket.se/henna. However, normal transfer temporary tattoos that you can buy in, for example, toy shops, are normally not dangerous at all. But only buy products that have a list of ingredients and Swedish instructions.

Wood for outdoor use

Wood for outdoor use is often treated and sometimes material from old railway sleepers or telegraph poles that is treated with creosote is reused. Creosote is carcinogenic and this material has been banned in playgrounds and should be avoided in gardens, especially in vegetable patches, and in places where children may frequently come into contact with the material. There are other wood treatment products, aside from creosote, that should be avoided when you are building something new. If you are building a sandpit, it is therefore a good idea to use untreated timber and instead reinforce the wood with oil.

Lighter fluid

Every year, children are hurt by lighter fluid and they do not need to swallow a lot to be harmed. If a child swallows lighter fluid, some of it can end up in their airways. This can lead to chemical pneumonia and, in the worst case scenario, can be life threatening. Remember to always screw on the cap properly and that a childproof cap is not always safe. If you have lighter fluid at home, the safest thing to do is to always store it out of the sight and reach of children. You also need to pay attention to warning labels and follow the instructions on the packaging when you use it. Alternatives to lighter fluid are lighter paper or an electrical barbecue lighter.





Repairing and cleaning

It is possible to childproof your home to a certain extent. But some chemical products may be needed in everyday life. In most homes, these end up in places where children do not usually spend time and where we believe the products are safe from their inquisitive fingers. But whenever you decide to put them, it is always good to have double barriers, for safety's sake. Place harmful products where children cannot reach them, even if you do not think that they can get into the room. When children are a little older, it can also be a good idea to explain to them why certain products are dangerous so that they understand why they are kept hidden.

Car care products

Antifreeze, battery acid and petrol can cause serious harm, even in small quantities, if a child ingests them. You should therefore always store car care products somewhere children do not have access to.

GOOD TO KNOW! Children are inventive. Work on the premise that they can also get into locked rooms and spaces. Therefore, you should always remember to put harmful products out of sight and out of reach. Pay attention to the warning labels and always follow the instructions on the packaging when you use the product. Never decant chemical products in alternative packaging, for example a soft drink bottle.

Drain cleaner

Keeping drain cleaner at home is dangerous as it can cause serious injuries. Think about whether you really need to have this product at home if you have small children. Drain cleaner, which contains caustic soda, also known as lye, can cause serious burns if you get it in your mouth, oesophagus or skin. In the worst case, a child who gets caustic soda in their eyes, will lose their sight.

Instead, prevent blockages in the drain by wiping up fat from the frying pan and by running hot water through the drain from time to time. If there is a blockage in the drain, it is possible to use mechanical methods to unblock it, for example by cleaning it out by hand, using a plunger or calling a plumber. There are also drain unblocking products on the market that are not corrosive. Ask in the shop for help finding an alternative to corrosive drain cleaner.



GOOD TO KNOW! If your child has swallowed a harmful chemical product or got it on their skin or in their eyes, call 112 and ask for poison information.

Washing detergent and fabric softener

Washing detergent is a chemical product that is a strong irritant when it comes into contact with the skin, mouth and oesophagus and sometimes also for the eyes. Be especially careful with single portion capsules as small children can easily put these in their mouth. Washing detergent has to be labelled with a warning symbol and stored out of the reach of children. Many washing detergents and fabric softeners contain perfume, which can cause allergies. It is a good idea to choose environmentally labelled and perfume-free products and to think about whether you really need to use fabric softener on children's clothes.

Pesticides

Chemical pesticides used to kill weeds, moss and insects are often harmful and should therefore be handled with great care. All pesticides sold and used in Sweden has to be approved by the Swedish Chemicals Agency. If you have pesticides at home, please ensure that you follow the instructions on the packaging and store them out of the sight and reach of children. If you buy the product online, you need to check before ordering that its use is permitted in Sweden. Those pesticides that are approved in Sweden and may be used will have a four-digit registration number. Handling unapproved pesticides may be significantly more dangerous and they may not even work.

Lamp oil

If children ingest lamp oil, some of the oil can end up in their airways and cause chemical pneumonia, which can be life threatening. Children can also be harmed if they suck on an oil lamp's wick and ingest lamp oil in that way. Both lighter fluid and lamp oil must be labelled with specific warning text and the bottles must be black and contain no more than one litre. White spirit and petroleum distillate can also cause chemical pneumonia if ingested. These should therefore not be kept or used in the proximity of small children.



Warning labels



Hazardous chemical products have to be labelled with symbols and text that provides information about the danger. It also has to state how you can protect yourself and how to handle the product safely. There are currently two different types of warning symbol on chemical products. This is due to new regulations that mean the older symbols with an orange background (known as danger symbols) are being replaced with new symbols with a white background and a red frame (known as hazard pictograms). From 1 June 2017, the new symbols have to be on products that are sold in shops. One benefit of the new symbols is that they will look the same in many countries all around the world.

In homes with small children, it can be a good idea not to buy products that are marked with danger symbols when possible. If you do still need to use certain chemical products that are hazardous and are labelled with symbols, they should be stored in their original packaging on which the warning information is depicted and out of the sight and reach of children. Never decant chemicals into soft drink bottles, mugs or other packaging that means they can be confused with something drinkable. If a poisoning accident does still occur, call 112 and ask for poison information.

GOOD TO KNOW! School children can learn to become more aware of the risks of hazardous chemical products in the home on the educational website <http://english.hannashus.dk/>.

Products that are hazardous to health



Products with any of these danger symbols or hazard pictograms may cause corrosion or irritation if they come into contact with the skin, eyes and

airways. Some may also cause allergic reaction when they come into contact with the skin. If the product is corrosive, it can cause serious injuries even when the period of contact has only been short, for example a splash in the eyes. Products that contain corrosive substances such as ammonia, caustic soda (lye), some acids such as vinegar (24 %) can cause injury even in small quantities. All-purpose cleaner, dishwasher detergent, washing detergent, drain cleaner, limescale remover and oven cleaner are often labelled with these symbols.



These symbols can be found on antifreeze for cars, lighter fluid, white spirit, lamp oil and petroleum distillate. The symbols mean that the product may can

cause serious injuries if a child happens to drink it. In order to minimise the risk of small children ingesting the product, lamp oil and barbecue lighter fluid are packaged in opaque black bottles with childproof caps. Remember to screw the cap back on after use.



These warning symbols can be found on petrol, for example. These products may have long-term health risks. For example, they can contain substances that may cause cancer, affect reproductive capacity,

harm unborn children or damage DNA. They can also damage other organs. Many chemical products with these warning symbols may not be sold to members of the public.

Products that are hazardous to the environment



Some chemicals such as paints and pesticides can harm both animals and plants if they are released into the environment. People are also at risk if we ingest these substances indirectly due to them contaminating the food we eat or the water we drink. Think about the environment when you are disposing of any waste and always hand in left-over chemicals to a recycling centre. Never pour left-over chemicals down the drain.

Flammable or explosive products



These symbols can be found on products that are flammable and those that can explode or oxidise. Examples of such products are petrol, diesel, acetone and turpentine. Fireworks, aerosol cans and LPG bottles are examples of products that can explode if they are exposed to heat. You can read more about storing flammable and explosive products on the Swedish Civil Contingencies Agency's website, www.msb.se.

Child-resistant fastening

In order to minimise the risk of children being harmed by chemicals, certain hazardous chemical products such as lighter fluid must have a child-resistant fastening. For example, this can be a cap that is difficult for small children to open. Make sure to screw the cap on the bottle, but do not blindly rely on child-resistant fastening. Children can be ingenious. Consequently, the bottles should always be stored where children cannot reach them.

Warning labels for the visually impaired



Many hazardous chemical products that are sold to the general public also have a marking that people who are visually impaired can read through touch. This marking is embossed and is often in the shape of a triangle.

Environmental and safety labelling



The EU flower (the EU Ecolabel) is the European equivalent of the Nordic Swan Ecolabel. The requirements for this ecolabel were drawn up by the EU's member states at the request of the European Commission.



The Swan is an ecolabel drawn up at the request of the Swedish Government, the requirements for which are determined by the Nordic countries.



Good Environmental Choice is the Swedish Society for Nature Conservation's own environmental label for achieving a society that is in balance with nature in which environmental benefit, public health and global solidarity are placed at the forefront.



The Swallow is the Swedish Asthma and Allergy Association's label and indicates that the product has a low allergy risk.



Öko-Tex is a label for textiles that have been tested for, for example, allergenic dyes and metals.



GOTS is an international label for fabric. This label requires that the fabric contain at least 95 per cent organic material.



The hand & book symbol must be included on cosmetic products if there is more information to read somewhere, for example in an attached leaflet or on a label, tape or card. This information may be list of ingredients, warning label or user information.



The glass and fork symbol (the "food safe"-symbol) is an EU label that guarantees the product is safe and appropriate to use in contact with foodstuffs. The material in the product will not affect the taste or colour of the foodstuff.

The CE mark

Products such as toys and electronic equipment for domestic use must be labeled with the CE mark. Companies themselves are responsible for checking and marking their products. The mark means that the product fulfils the European safety requirements and makes it easier for you to choose safe products. A correct EU CE mark looks like this:



You can read more about CE marking and other labelling schemes relating to the environment and sustainability at www.hallakonsument.se.

Words and terminology

In this brochure, we use a large number of uncommon words and expressions. It is therefore not that strange if you do not recognise them. Here we explain what they mean in a little more detail.

Antibacterial substances. On goods that have been treated with chemical substances in order to prevent, for example, the growth of bacteria and bad odours, it may state, for example, “treated against bad odours”, “for lasting freshness”, “anti-odour”, “hygienic protection”, “antimicrobial”. But an antibacterial treatment is usually not necessary on these everyday items and the substances are often washed off the first time they are washed. It has been discovered that these antibacterial substances harm the bacteria that are needed to purify water. Antibacterial substances are suspected of contributing to resistance to antibiotics. Triclosan, triclocarban and silver are examples of such antibacterial substances.

Bisphenol A (BPA) is a substance that is suspected of disrupting hormones and is used, for example, to manufacture special plastic that can be found in transparent hard plastic bottles and as a protective coating in preserving jars. This substance is also present in various types of tickets and receipts.

Lead is a very poisonous element that can, for example, damage the nervous system and affect the ability to learn. Lead can be mixed with other metals in order to make it easier to manufacture parts where the shape is important, for example keys and mixer taps in the home. Foetuses and children are particularly sensitive to lead. From June 2016, lead is banned (over a limit of 0.05 per cent by weight) in all items that children may put in their mouth. Keys are exempted from the EU ban and may therefore still contain lead.

Hazard pictogram is the new name of the hazard symbols that have to be on packaging that contains hazardous chemical products. Hazard pictograms depict a black symbol on a white background with red frame and are there to entice those who are using the product to read the information on the packaging. Hazard pictograms are also there to warn of the danger

and make it easier for consumers to choose another option.

Flame retardant is used to delay or prevent a material catching fire and can be found in textiles and electronic equipment. Some flame retardants are hazardous to health and the environment and some are suspected of disrupting hormones. Flame retardants can leak out when goods are manufactured, used and when they are disposed of. They often collect in dust indoors. It is therefore a good idea to air out rooms frequently.

Phthalates are a group of substances that are used to make plastics and rubber soft and smooth. Phthalates are used in many different types of product such as plastic flooring, PVC and plastic prints on clothing. Some phthalates are banned in toys as they can leak out of the plastic, be taken up by the body and are suspected of having an impact on the ability to have children.

Hormone disrupting substances are substances that are alien to the body and may disrupt the body's endocrine system. Many important processes are controlled by hormones that act at very low concentrations in the body. Hormone disrupting substances can disrupt these processes. Foetuses and children can be particularly sensitive to these substances.

Cadmium is a metal that is toxic to the environment and can cause osteoporosis, kidney damage and cancer.

Chemicals. In In this brochure, the term chemicals is used for both chemical substances and mixtures of substances (such as acetone, ethanol, paints and washing detergents).

Chemical substances are elements and compounds of elements. They can be natural or man-made. Examples of chemical substances are acetone, ethanol, lead and mercury.

Chemical mixture is a mixture of two or more substances. Examples of substances are paint, washing detergent and car care products.

Chemical pneumonia is pneumonia that is caused by a chemical substance, usually in the form of highly volatile petroleum products such as lamp oil and lighter fluid.

Cosmetic products are substances or mixtures that are applied to the external parts of the human body or to teeth and mucous membranes in the mouth, primarily for the purposes of cleaning, changing their appearance, maintaining their condition or perfuming them. Examples of such products are soap, skin cream, hair-care products, toothpaste, make-up and sun cream. The Medical Products Agency is the supervisory authority for these products.

Creosote is classified as a carcinogen and contains several substances with properties that are hazardous to health. The use of creosote has been restricted since the 1980s. Before then, the use of creosote-treated timber in buildings was not regulated and creosote may therefore be present in older homes. Creosote is now only used by professionals for the industrial treatment of railway sleepers and electricity and telegraph poles.

Mercury is an element that is hazardous to both the environment and human health. Mercury is banned in almost all goods in Sweden, except for low-energy light bulbs and rechargeable batteries. Exposure to low quantities of mercury on isolated occasions has no harmful effect on health, but should be avoided as a precaution. Continual long-term exposure to mercury can affect primarily the nervous system and brain.

Activated charcoal binds to many substances, including the majority of medicines and thus reduces their uptake into the body. When necessary, charcoal can be mixed with juice or sugar in order to improve the taste. Always call the Poisons Information Centre before giving charcoal as it is not always recommended. Activated charcoal can be purchased from pharmacies without a prescription.

Mineral oil is made from crude oil and there are many different types, for example paraffin

and Vaseline. Many different types are used in applications including liquid-filled decorative items. Children who ingest concentrated mineral oil are at risk of chemical pneumonia.

Natural products and natural materials sound good, but you should be aware that natural materials may contain toxins that nature uses to protect herself against parasites or attract insects. This can be, for example, herbicides or strong scent substances. You should therefore not equate natural materials with harmless materials. When something smells strongly, it is giving off something into its surroundings. It is therefore preferable to use odourless products for children. Natural rubber may contain small quantities of naturally occurring nitrosamines. This is a group of substances that are carcinogenic.

Nickel is a metal that is used in, for example, tools and jewellery and can cause a contact allergy. Nickel tests are available in some pharmacies and these can indicate whether an item is releasing nickel.

PVC (polyvinyl chloride) is sometimes called simply vinyl. It is one of the most common types of plastic and is very hard in its original state. Softeners such as phthalates are added to make PVC soft.

Substances of very high concern. If an item contains more than 0.1 per cent by weight of any of the substances included on the EU's candidate list of substances of very high concern, the retailer is obliged to provide information about the substance if you, the consumer, asks for it. You have a right to know the name of the substance and be given sufficient information to allow the product to be handled safely. This information is to be provided free of charge within 45 days of the consumer having requested it.

Thermal paper is paper that is used for receipts, train and airline tickets and queue tickets. Thermal paper may contain the suspected hormone disrupting substance bisphenol A. Consequently, do not let children put tickets or receipts in their mouth or play with them.

Your right to information

As a consumer, you have the right to obtain information about whether a product contains any of the substances in the EU's list of substances of very high concern, known as the candidate list. If you request this, the retailer of the product has to be able to tell you whether it contains any of the listed substances and, if so, which. This is free of charge and must be done within 45 days of the day you requested the information. The owner of the shop has a right to obtain the same information about the product from its manufacturer or importer.

GOOD TO KNOW! At www.kemikalieinspektionen.se/en/guidance-for-consumers, you can read more about your right to information about chemicals in products and also find a sheet to print out that you can use to more easily put your question to the shop.

In the case of building materials, information about substances of very high concern has to be included with the product when you purchase it. If a product is treated with pesticides, for example antibacterial substances, this must be stated on the product. Hazardous chemical products also have to be labelled with warning symbols and text that provides information about the danger.



Other points of contact

This is a list of contact information for other actors that work with chemicals and/or children.

The Swedish Asthma and Allergy Association has information about allergy risks and lists of products that are considered better than others in terms of allergies, **+46 8-506 282 00**, www.astmaoallergiforbundet.se

Child health centres can answer many questions about child health and safety.

The Swedish Energy Agency has information about various types of light bulbs such as LED bulbs, low-energy bulbs and halogen bulbs. **+46 16-544 20 00**, www.energimyndigheten.se

The Public Health Agency of Sweden is a national authority that work to improve public health. The authority does this by developing and supporting Swedish society's efforts to promote health, prevent ill health and protect against health threats. **+46 10-205 20 00**, www.folkhalsomyndigheten.se

The Swedish Poisons Information Centre can be reached 24 hours a day by calling 112 and asking for poisons information. In less urgent cases, you can call the Poisons Information Centre on **+46 10-456 67 00**. The website contains information about first aid, advice and information about the most common household chemicals, about poisonous mushrooms, poisonous animals, plants, berries and pot plants. www.giftinformation.se

Hallå konsument is a national information service that is coordinated by the Swedish Consumer Agency. You can turn to them with question about purchasing goods and services, terms and conditions in contracts, shopping sustainably and other things that you as a consumer may need help with. www.hallakonsument.se

The Institute of Environmental Medicine, which is part of Karolinska Institutet, has a website containing extensive information about the risks of chemical substances, metals, etc. www.ki.se/imm/riskwebben.

Municipal consumer advisors are able to provide advice about products and services. Most municipalities have their own consumer advisors. You can find contact details on the

Consumer Agency's website, www.konsumentverket.se

Municipal environmental offices can also provide advice about health, the environment and waste.

The Swedish National Food Agency is Sweden's expert and central inspection authority in the area of foodstuffs. This authority works to ensure that food is safe and drinking water is of a high standard, that no consumer will be deceived about the content of their food and to promote good eating habits, **+46 18-17 55 00**, www.livsmedelverket.se

The Swedish Medical Products Agency is an authority with a remit to promote public health and animal health in Sweden. The objective is for the individual patient and the healthcare system to have access to safe and effective medicines and to promote the safety and quality of cosmetic products, **+46 18-17 46 00**, www.lakemedelverket.se

The Swedish Civil Contingencies Agency (MSB), is behind www.dinsakerhet.se where you can find check-lists that can be used to detect risks to children in your home.

Vårdguiden 1177.se/barn has information about children and chemicals. **Tel. 1177**, www.1177.se

Skydda antibiotikan is a website that spreads knowledge about making sensible choices in everyday life in order to combat the increasing prevalence of antibiotic resistance. The website is a partnership between 23 government authorities and organisations and is coordinated by the Public Health Agency. www.folkhalsomyndigheten.se/skyddaantibiotikan

The Swan and the EU Ecolabel. The state-owned company Ecolabelling Sweden is responsible for both the Swan and the EU Ecolabel and is a non-profit-making enterprise that works on behalf of the Swedish Government. The products and services that are labelled with the Swan and the EU Ecolabel have to be the best choices in terms of the environment, health and quality. **+46 8-555 524 00**, www.svanen.se

More about the Swedish Chemicals Agency

The content in this brochure is summarised and is based on the investigations and inspections the Swedish Chemicals Agency has conducted since it was formed in 1986. The brochure has also been produced in close partnership with the supervisory authorities responsible for various products that feature in children's everyday lives.

At www.kemikalieinspektionen.se/en/guidance-for/consumers there is more information for people who want to know more about chemicals and how they affect us. Our newsletter contains up-to-date information about new regulations and decisions and about what our inspectors have found during inspections of companies and when analysing products.

You can find answers to common questions about chemicals or send your own question to: www.kemikalieinspektionen.se/fraga/



In the event of an accident

EMERGENCY: If the child has ingested something hazardous, call 112. Open around the clock.

LESS OF AN EMERGENCY: Call the Poisons Information Centre on +46 10-456 67 00.

Doctors and pharmacists who can provide advice and answer questions work at the Poisons Information Centre.



Quick suggestions!

- Store hazardous chemical products in their original packaging out of the sight and reach of children.
- Avoid products that are treated with antibacterial substances.
- Do not let children suck or bite on things that are not made for them.
- Air out rooms frequently and try to keep dust out of rooms where small children crawl around and play.



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