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Brief information on the rules for chemical substances in articles

Chemical substances are necessary for enabling us to live our lives. They are used for practically everything we surround ourselves with, e.g. clothing, electronics and toys. This fact sheet provides a brief introduction to the rules governing chemical substances in articles.

All articles contain chemical substances. These are contained in the materials and components the articles are made from. Chemical substances can also be added in order to achieve certain functions, for example making a plastic soft, textiles flame resistant or for making a metal surface shiny.

When a chemical substance is present in an article it may, under certain circumstances, leak from the article. The substance may then, for example, end up in the environment, gather in dust or be absorbed by a person's skin. Leakage can occur when the article is being manufactured, used, cleaned or when it becomes waste. If the chemical substance possesses properties that are hazardous to health and the environment, it may cause damage to people's health and the environment.

Companies are responsible

Companies which manufacture, import and sell articles are responsible for ensuring that the articles do not damage people's health or the environment.

In order to fulfill their responsibility companies must acquire knowledge, assess the danger of their products, phase out hazardous substances and work continuously towards minimising the risks. Companies which buy and sell articles



Photo: <Ingen överlappande länk>

Chemical substances are contained in most articles surrounding us, e.g. clothing, electronics and toys.

must, therefore, impose strict requirements on their suppliers in respect of the articles and ensure that they comply with the rules.

The difference between articles and chemical products

An article is defined in the REACH regulation as an object, the shape, surface or design of which determines its function to a greater extent than its chemical content.

There is differentiation in legislative texts for articles and chemical products (substances and mixtures). A chair, for example, is an article while paint is a chemical product.

Toys

Children are extra sensitive to chemicals, which are why there are special rules relating to toys. For example, there are limits to how much lead may be given off from a toy. Certain softening agents, so-called phthalates, are also restricted.

A number of toys can also be cosmetic or chemical products, such as face paints and soap bubbles. They then need to fulfill the requirements in other legislation as well.

Furnishings and building materials

Furnishings and building materials, e.g. furniture and floors, consist of many different materials which can release substances.

Building materials are articles which are built in and which remain in our local environment over a long period of time and it is therefore important that these do not contain hazardous substances. Examples of hazardous substances that can occur are softeners (phthalates) in plastic floors, brominated flame retardants and anti-mould agents in furniture.

There are certain special rules governing furnishings and building materials, for example there is a restriction on formaldehyde in particle board and rules for how decorative oil lamps may be designed.

Clothing, footwear and jewellery

Clothing, footwear and jewellery can consist of many different materials and many chemicals are used when they are manufactured. Since they are used close to the body and are to be found in many places in our homes, it is important to ensure that they do not contain hazardous substances. Examples of substances which are restricted in these articles are azo colouring agents in textiles and nickel, cadmium and lead in jewellery. Other hazardous substances that can occur in these articles are hexavalent chromium in leather articles, perfluorinated substances in dirt- and water-resistant material as well as anti-mould agents used during transport.

Electronics

Electrical and electronic products often consist of very many different materials which can

contain many substances, some of which can possess hazardous properties.

Products which are operated by power or battery, or are in some other way dependent upon power or magnetic fields in order to work, are considered as electrical and electronic products.

Examples of hazardous substances that may be found in electronics are lead in solder points, brominated flame retardants in plastic and mercury in low energy lights.

Rules on hazardous substances in articles

Where chemical products are concerned there is a comprehensive set of legislation which determines what may be sold and what form warning information is to take.

The rules covering chemical substances in articles are not as comprehensive. There are, however, some rules that apply in general to all kinds of articles. In addition certain groups of articles are covered by special legislation. The majority of rules are common to the entire EU in the form of regulations and directives.

An overriding principle is that articles sold to the general public shall be safe. This is stated in the Product Safety Act. In the Environmental Code too, in what are termed the consideration rules, there are rules regarding a general principle of precaution in relation to articles.

The REACH Regulation

EU's overall regulations regarding chemicals are the REACH Regulation. REACH contains various rules concerning chemicals in articles.

One rule states that whoever sells articles which contain substances of very high concern, must inform about this. Such substances are to be found in a list referred to as the candidate list. This is updated twice a year.

If an article contains a substance on the candidate list at a level of over 0.1 percentage by weight, the information regarding this must be passed on to all company customers. Consumers shall be given the information they request within 45 days. The information provided shall enable safe handling of the article and shall contain the name of the substance of very high concern.

In the REACH Regulation there are also rules governing substances which are prohibited in different kinds of articles. For example, certain phthalates are not permitted in toys and cadmium is not permitted in certain types of plastic.

There are also rules in the REACH Regulation which state that certain substances in articles must be registered or notified. Certain substances require an authorisation in order to be used in the manufacture of articles within the EU.

The Waste Framework Directive

From 5 January 2021, suppliers of articles must submit information to a database at the European Chemicals Agency ECHA, the so-called SCIP database. Suppliers must do so if the articles contain more than 0.1 per cent of a substance on the EU candidate list. The requirements do not apply to retailers who only sell articles directly to consumers.

POPs Regulation

The regulation relating to persistent organic pollutants (POPs = persistent organic pollutants) prohibits the use of a number of persistent organic environmental pollutants. These are substances which take a very long time to degrade and which can damage the environment and human beings.

Certain substances may still be found in articles; for example electronics can contain brominated flame retardants and plastic articles can contain short-chained chlorinated paraffins.

The Toy Safety Directive

In the Toy Safety Directive there are numerous safety requirements which toys have to fulfill. There are requirements governing physical, mechanical, hygienic and chemical safety as well as electrical safety.

Where chemical substances are concerned there are rules which specify how much of certain metals are allowed to be released by toys. There are prohibitions on certain particularly hazardous substances and certain fragrances. The directive also contains a requirement regarding warnings, CE marking and technical documentation.

The RoHS Directive

All products operated by power or battery or which are, in some other way, dependent upon power or magnetic fields in order to work, are regarded as being electrical and electronic products. The presence of lead, cadmium, mercury, hexavalent chromium, the brominated flame retardants PBB and PBDE and the plasticizers DEHP, BBP, DBP and DIBP in electrical and electronic products, is restricted in the RoHS Directive. There are also requirements in the directive which state that the products shall bear the CE marking and that there shall be technical documentation available.

Biocidal Products Regulation

In the European Biocidal Products Regulation which came into force on 1 September 2013, there are rules governing biocide-treated articles.

Biocides are substances which are used to prevent and control animals, plants or micro-organisms, including viruses, from causing harm or inconvenience in respect of human health or damage to property. The word biocide is Latin and means life killer. Examples of biocides that are occasionally used in articles are antibacterial agents. They are sometimes added in order to control bacteria or bad odours, e.g. in sports clothing.

The Biocidal Products Regulation contains rules which state that only authorised biocides may be used. Biocide-treated articles shall be labelled to show which substance they contain together with information about safe handling if the biocide treatment is claimed to provide the article with specific properties, for example that it is antibacterial.

Other rules about chemicals in articles

The Packaging Directive: This contains rules regarding which metals may not be present in packaging material.

The Battery Directive: Rules governing restrictions on certain metals in batteries.

Building Product Regulation: This regulation gives EU states the opportunity to introduce national chemical rules for building products. There are no such Swedish rules at present. If

substances of very high concern, that are included in the candidate list in REACH, are found to be included in the article, this shall be stated on the declaration of performance.

Swedish special rules: Sweden has certain national special rules which apply to chemicals in articles. Examples of such rules are a total ban against mercury and a restriction of formaldehyde in particle boards.

Checks by authorities

The Swedish Chemicals Agency and the municipalities share the responsibility for enforcement of the rules governing chemical substances in articles. The authorities can conduct random sample checks and inspect companies in order to check their preventive work. With regard to analyses of random samples the authorities have, for example, found nickel, cadmium and

lead in jewellery, phthalates in toys and azo colouring agents in clothing.

Further information

On the Swedish Chemicals Agency's website www.kemikalieinspektionen.se there is more information about the rules which apply to chemicals in articles. There is also a substitution tool called PRIO.

About this fact sheet

The legislation included in this fact sheet is legislation which concerns the Swedish Chemicals Agency's sphere of responsibility. The table below provides an overview of rules that apply to various groups of articles. There are also other rules which relate to articles.

Rules relating to different product groups

Regulation	Toys	Electronics	Clothing, footwear, jewellery	Furnishings and building materials
REACH Regulation (EC) No 1907/2006	Yes	Yes	Yes	Yes
POP Regulation (EC) No 2019/1021	Yes	Yes	Yes	Yes
Toys Directive (2009/48/EC)	Yes	No	No	No
RoHS Directive (2011/65/EU)	Yes*	Yes	No	No
Biocidal Products Regulation (EU) No 528/2012	No	Yes**	Yes**	Yes**
Battery Directive (2006/66/EC)	Yes*	Yes	No	No
Packaging Directive (94/62/EC)	Yes	Yes	Yes	Yes
Building Products Directive (EU) act 305/2011	No	No	No	Yes
Product Safety Act (94/62/EC)	Yes	Yes	Yes	Yes
Waste Framework Directive (2008/98/EC)	Yes	Yes	Yes	Yes

* Applies to electrical toys

** Under condition that the article has been treated with a biocidal product or has a biocidal function

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The Swedish Chemicals Agency is a supervisory authority under the Government. We work in Sweden, the EU and internationally to develop legislation and other incentives to promote good health and improved environment. We monitor compliance of applicable rules on chemical products, pesticides and substances in articles and carry out inspections. We review and authorise pesticides before they can be used. Our environmental quality objective is A Non-toxic Environment.