

Swan labelling of

Toys

Proposal: Background document on the ecolabelling of toys

May 2011



Nordic Ecolabelling

In November 1989, the Nordic Council of Ministers adopted a measure to implement an official voluntary ecolabelling scheme, the Swan. The organizations/companies listed below administer the Swan ecolabelling schemes on assignment from their national governments.

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095/Version 2.0, Proposal

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What is a Swan-labelled Toys?	
Why choose the Swan label?	
What can carry the Swan label?	
How to apply	
What are the requirements of Swan labelling?	
1 Environmental requirements	
2 Quality and regulatory requirements	
3 Environmental management and regulatory requirements	
Marketing	
Design of the Swan label	
Follow-up inspections	
How long is a licence valid?	
New criteria	

1 Summary

The criteria document for the Swan labelling of toys was first laid down in June 2007. The document has been revised during the period 2010/2011, and version 2 will be presented to the Nordic Ecolabelling Board (NMN) in October 2011. This document provides a description of and the background for the health and environment-related requirements set in the criteria document.

During the period in which the criteria for toys have existed, a range of controls have been carried out on toys in the European market which show that many products have errors or omissions in relation to the authorities' requirements, and that many toys contain substances harmful to health and the environment. In addition, Dantoy, Brio and Grom have received Swan labels for their products. The focus on substances in toys that are harmful to health and the environment, and access to Swan labelled toys on the market, means that consumers can now make safer choices.

Nordic Ecolabelling requirements include requirements for plastic and rubber, textiles, stuffing materials, wood-based materials and metals, in addition to requirements for adhesives and chemicals that are used in the surface treatment of the various materials. There are also separate requirements for electrical toys and packaging, and quality and authority requirements.

The requirements were drawn up in close consultation with various manufacturers, suppliers of raw materials, representatives of the public authorities and NGOs. Various Nordic Ecolabelling and Flower criteria documents were also consulted. The objective of the requirements is to bring about a reduction in the use of substances that are harmful to health and the environment, to increase the proportion of certified raw materials used and to reduce emissions to water and the atmosphere of problematic substances.

Suggestions for the criteria, version 2, will be open for hearing for 60 days in the period April - May 2011.

Changes that are carried out in relation to the previous version are collated in the table in chapter 6 of this document.

Hearing comments will be able to result in changes in the suggestions for the criteria. After the end of the hearing period, the comments will be collated and commented on by Nordic Ecolabelling. The collated comments will be available after the hearing, and can be obtained on request from one of the secretariats.

2 Basic facts about the criteria

Definition of a toy

A toy is defined as a product that exclusively or partly is designed or intended to be used during play by children under the age of 14 years. The phrase "exclusively or partly" means that even if a product only partly consists of a toy, the entire product is considered to be a toy and must fulfil the safety requirements.

The definition is set within the framework of EU Directive no. 2009/48/EC (children under 14 years).

Toys that are eligible for a Swan label

Any product that is clearly designed or intended for the purpose of play for children under 14 years of age, and which is made of one or more of the following materials can be Swan labelled:

- plastic and rubber
- textiles
- padding materials
- wood-based materials
- metals

Other materials imposed may individually make up no more than 1% by weight of the toy and in total other materials must not exceed 2% by weight.

Typical toys that qualify for a Swan label include rattles and teething toys made of various materials and intended for use by children aged below three years. Building blocks, bricks, sand and water toys such as buckets and spades, dolls, puzzles, electric toys/cars and activity toys that produce light and sound may also be eligible for a Swan label.

Et produkt som kan oppfattes som et leketøy og som faller inn under produktkategorier det allerede er utviklet miljømekingskriterier for, herunder tekstilprodukter, skriveredskaper og trykksaker/papirprodukter, kan svanemerkes, men ikke nødvendigvis etter kriteriene for leketøy. Dette betyr f.eks. at en fargeblyant må søke etter kriterier for skriveredskaper, mens en bamse/nalle kan søke etter kriterier for leketøy (bamse/nalle inngår ikke i kriterier for tekstiler selv om det består av like materialer). Nordisk Miljømerking forbeholder seg retten til å avgjøre hvilke kriterier et produkt kan søke. Kravene i de relevante miljømerkingskriteriene må da oppfylles. For nærmere informasjon, ta kontakt med miljømerkingsorganisasjonen.

Toys that do not qualify for a Swan label

Hobby materials cannot be Swan-labelled. Hobby materials are defined as materials used for hobby, handicraft and pictorial art purposes. Examples of materials of this type include modelling wax, clay, plaster, finger paints and chemistry sets.

The evaluation of the criteria document for toys, version 1, from May 2010, concluded that it is natural to add chemical-technical products such as hobby materials under the writing tools product group. Hobby materials are not included in applicable requirements for writing tools (version 3), but a revision of these criteria will be started during 2011, and will then be taken up for assessment.

Toys that are not encompassed by EU Directive No. 2009/48/EC cannot be Swan-labelled. The Directive contains an overview of 19 different product areas that are not classified as toys, including babies dummies, sports equipment, bicycles (except bicycles that are regarded as toys with a maximum seat height of 635 mm), fireworks and faithful reproductions of firearms (see Appendix 1). Toys of this type cannot be Swan-labelled.

2.1 Relevance, potential and controllability

Nordic Ecolabelling's work involves developing health and environmental requirements for various products. Before work commences on drafting requirements for a new product area, three parameters are considered: Relevance, Potential and Controllability (RPC).

Relevance – Does an environmental problem exist?

Potential – Can anything be done with the problem?

Controllability – Can ecolabelling do anything with the problem?

Relevance is assessed on the basis of whether there are impacts on health and/or the environment associated with the production, use and waste disposal of the products in question. The potential for reducing the effects on health and/or the environment of the life cycle of the products is then considered. Finally, the question of whether ecolabelling will provide sufficient controllability for the potential improvements to be realised is considered.

Relevance

The environmental impact of a toy depends upon the composition of the materials in the toy. Production, manufacturing and waste handling of the relevant materials are factors that affect the environment. The environmental problems associated with the extraction and production of these materials, including the use of problematical auxiliary substances and additives such as heavy metals, softeners, halogenated compounds etc., are areas of priority both for the environmental authorities and for Nordic Ecolabelling.

During the phase in which the product is in use, the primary focus is on health-related problems, including noise and the migration of substances harmful to health. In recent years, a number of extensive tests have been conducted on toys, revealing a content of substances harmful to health, not only substances regulated by the authorities, but also substances on the warning lists of the authorities/. Tests have also revealed a failure to comply with the noise requirements laid down by the authorities/. These revelations show that a need exists to impose requirements on the use of harmful substances of this type, and to require manufacturers to submit documentation and test reports, not solely self-declarations in accordance with CE labelling (the background for CE labelling is described in Chapter 2.4).

NOTE: The list is the Norwegian authorities' list of substances that are particularly dangerous to health and environment (approx. 250) which are used to such an extent that they can represent significant problems at a national level.

The environmental impact associated with transport is also of significance in the case of toys since approximately 72% of toys sold in the EU are imported from countries outside of the EU (2009). A key element when considering transport is the use of packaging. In some cases, the use of packaging is necessary in order to protect the product during carriage. However, packaging is also important in the marketing of the product in retail outlets.

Toys are products that in some cases become waste after a very short period of use. The useful life of the product and the scope for recycling the various materials have a bearing on the waste processing and environmental impact associated with the product. When the toy becomes waste, ingoing components that are harmful to health and the environment may be released.

Potential

There have in recent years been numerous findings in toys of substances that are harmful to health, indicating a failure to comply with the requirements laid down by the authorities.

RAPEX (Rapid Exchange of Information) is a system for the rapid dissemination of information about products within the EEA that may result in a health and safety risk. RAPEX is obligatory in accordance with 92/59/EC and covers all products, except foodstuffs. RAPEX notifications show that many toys that are sold within the EU/EEA do not comply with the authorities' requirements regarding noise and/or content of substances harmful to health and the environment.

This may also suggest that the requirements laid down by the authorities are not sufficiently extensive in terms of the materials and the chemicals used both in the production and the finishing of toys. Accordingly, potential exists for an environmental improvement.

Possibilities exists for differentiating between toys in terms of their environmental and health properties. However, here too this will vary depending on the types of materials used. In the case of plastics and rubber, it is possible to distinguish between various types of plastics and various additives such as plasticizer, catalysers, flame-retardants and colouring agents. In the case of wood-based products, it is possible to distinguish between the origins of raw materials, as well as the production of panel materials and surface treatment. In the case of textiles and padding materials, it is possible to differentiate between the ways in which raw materials are produced and the additives used to give textiles and padding materials the desired properties. Printing and other surface treatment of textiles are areas in which potential exists for improvements in terms of health and the environment. In the case of metals, potential exists for environmental improvement in the extraction of raw materials, but not in terms of controllability. Nevertheless, products used for coating and surface treatment on metals do provide scope for differentiation.

Indirect environmental effects may occur in instances in which production as a whole is changed, not simply in the case of products that are to be sold on the Nordic market.

Controllability

Swan labelling provides an efficient means of reducing the impact on health and the environment related to the production and use of and waste processing associated with toys.

Experience of other product areas on which Nordic Ecolabelling has worked for a number of years shows that imposing health and environmental requirements on various materials (raw materials, production, use and waste) can provide an effect on health and the environment. In Chapter 4 this is described in greater detail for the various materials.

Ecolabelling also provides controllability by requiring all requirements to be documented by means of test reports and declarations from suppliers and subcontractors. Investigations have shown that there are still toys on the market that fail to comply with the requirements of the authorities.

Summary RPS

An assessment of RPS for toys shows that the environmental impact comes from the materials in a toy (raw material extraction, production, use phase and waste), energy (for production and transport), and when the toy ends up as waste.

In the use phase, it is mainly health-related problems that are the focus, including noise and the migration of substances harmful to health. Included components that are dangerous to health and the environment may be released when the toy becomes waste.

The areas where Ecolabelling can first and foremost have an effect, i.e. where we have the opportunity to set requirements, is mainly the included materials and their qualities (classification and requirements for included substances) and raw material extraction (requirements for certified forests, traceability, and energy requirements in the production of wood-based raw materials).

Many toys that are sold within the EU/EEA do not comply with the authorities' requirements regarding noise and/or content of substances harmful to health and the environment. Ecolabelling therefore sets requirements, so that the use of substances harmful to health and the environment are limited, and so that all requirements shall be documented through test reports and statements from suppliers and sub-suppliers.

An important element when transport is considered is the use of packaging, so this is also an area we wish to focus on.

Tests have also revealed that the authorities' requirements for noise are not complied with. This shows that there is a need to set requirements regarding the use of such substances harmful to health, and demand documentation and test reports from manufacturers.

2.2 The Nordic and European market

The market for toys is large, and the industry is international.

Around 72% of toys sold in the EU are imported from countries outside of the EU (2009). China accounts for 86% of these imports. This means that China produces 62% of the toys that are sold in the EU. In 2009, toys sold in the EU (excluding the new member states) totalled 14.5 trillion Euro. This is equivalent to 1,400 billion units. This is a reduction compared to 2008. The European toy market was, however, the largest in the world in 2009. (tioetoy.org) This is equivalent to an average of 185 Euro per child per year.

Tabell 1 Markedstall leketøy

Toys market figures 2009		
Total turnover in EU	14 485 millioner €	100%
Production of toys in EU	5 000 millioner €	
Production of toys in EU for own market:	4 047 millioner €	28% av total marked

Export of toys from EU	953,2 millioner €	
Import of toys to EU:	10 429 millioner €	72% av total marked
Import from China (86% of total import):	8 969 millioner €	62% av total marked

Sales of toys break down are as follows:

Table 2 Various categories – traditional toys in EU 2009

Category	Percentage of sales
Baby toys	19,9%
Puzzles/jigsaw puzzles	12,7 %
Dolls	11,5 %
Cars	10,3 %
Outdoor toys and sports toys	10,6 %
Construction sets	7,7 %
Art and handicrafts	6,1 %
Cuddly toys	5,0 %
Action toys and accessories	6,8 %
Learn and experiment	2,7 %
Others	6,6 %
Total	100 %

Europe accounts for a very small proportion of the worldwide toy production (28%). The world's largest toy manufacturers are Mattel, Hasbro and Lego (Danish). In the Nordic countries, the key manufacturers include Dantoy, BRIO, Micki and IKEA. To a great extent, the larger companies are involved in product development. 72% of actual toy production is conducted in Asia, China being the largest producers.

Some 70% of total sales of toys in the Nordic countries are through retail outlets, with major chains such as BRIO, BR-leker and Toys R Us being the dominant players. Major wholesalers such as BRIO, LEIKA and Leksom supply the retail trade, with some also supplying the institutional market such as schools and nursery schools.

Interest groupings representing market players

The major trade organisation in Europe is TIE – Toy Industries of Europe/ . 95% of all companies operating within the toy sector in Europe are members. This includes the national trade organisations, as well as companies throughout Europe operating within the production, development, marketing and sale of toys, games and related products.

The ICTI – International Council of Toy Industries works to promote the health and safety of children/ . This includes promoting the international toy regulations and working to create responsible attitudes within advertising and marketing directed at children.

Does the market need an ecolabel?

70% of all toy sales are to private individuals, the largest sector being baby toys. Other European countries frequently report possible danger products on the market, especially toys. Kontroller 1 uncovers substances dangerous to health and the environment, such as phthalates and heavy metals (lead and chromium) and forbidden toys that do not live up to the authorities' requirements and CE labelling.

The Swan label has stricter requirements than those laid down by the authorities in terms of both content of substances dangerous to health and the environment, and testing of products and documentation that shows that the products fulfil the requirements. The Swan labelling of toys therefore represents safety and a stamp of quality that parents and others can use for guidance in the purchase of toys.

The Nordic toy market

The toy market in the Nordic region is characterised by some large wholesale and retail names such as BRIO, Ringo, Top Toy, Leksam, BR (owned by Top Toy), and Toys'R'Us. The large Nordic toy manufacturers are Lego, Dantoy, Brio, Micki (incl. Lundby) and IKEA. In addition, a few niche stores exist.

2.3 Other labelling schemes

Regulation applicable to the industry

Extensive official regulations apply to the production, importation and sale of toys in the Nordic countries. Producers, importers and vendors are required to acquire knowledge about potential hazards and to disclose such information. This duty of care provided for in the Product Control Act means that manufacturers, importers and retailers must be aware of the requirements applicable to toys and other products intended for use by children. Many of the rules in force in the Nordic countries are harmonised with those of the EU.

The requirements applicable to toys are provided in the Regulations on the Safety of Toys (the Toy Regulations).

The Regulations contain requirements on the labelling and documentation of the properties of the toy. Some requirements as to the properties of toys are contained in the Regulations or appendices to the Regulations, although most are contained in various standards. The standards in question are common to most European countries. The standards cover a wide range of risks, for example, sharp edges, the strength and length of cords, noise, small parts, the content of miscellaneous chemical substances, labelling, the content of instructions for use etc. Detailed instructions are provided on the way in which measurements are to be conducted.

Overview of standards:

- *Mechanical and physical properties (EN 71-1)*
- *Flammability (EN 71-2)*
- *Migration of certain elements (EN 71-3)*
- *Experimental sets for chemistry and related activities (EN 71-4)*
- *Chemical toys (sets) other than experimental sets (EN 71-5)*
- *Graphical symbols for age-warning labelling (EN 71-6)*
- *Finger paints – requirements and test methods (EN 71-7)*
- *Safety of electric toys (NEK EN 62115)*

- *Safety of power transformers, power supply units and similar (EN 61558)*

All toys on sale must carry a CE mark (Section 15 of the Toy Regulations).

The CE mark does not constitute approval by the authorities, rather it is a declaration from the manufacturer that the toy complies with the requirements of the Toy Directive and the associated standards.

All toys on sale must carry the name or trademark and address of the manufacturer or agent (Section 14 of the Toy Regulations). Many types of toys are required to carry special warnings, such as toys containing small parts and toys with special physical or chemical properties. Further details are provided in the various standards.

The manufacturer is responsible for ensuring that the toy produced fulfils the requirements in the toy directive. With regard to compliance with the directive, the manufacturer must first carry out a safety analysis of the chemical, physical, mechanical, electrical, flammability, hygienic and radioactive dangers that the toy may have, as well as an assessment of the potential exposure to these dangers. The goal of the safety analysis is to identify the toy's potential dangers, and assess the potential exposure to these dangers. The analysis helps to establish which compliance procedure (EN 71 standards) should be followed. When a toy's compliance with the applicable requirements is documented by this procedure, the manufacturer shall prepare an EF compliance statement, and add the CE label according to specific instructions, which informs the consumer of the toy's compliance with the requirements of the toy directive.

The manufacturer shall document that the toy complies with the requirements with a statement. If the qualities of the toy are covered by the standards, and the toy complies with the requirements, the manufacturer's documentation should consist of a product identification (type of toy, description), description of how the manufacturer ensures that the toy is in accordance with the standards (test reports or technical data), construction and production data about the individual type of toy, and the name and address of the place of production and storage.

If the qualities of the toy are not covered by the EN 71 standards, the toy is submitted for an EF type approval, where a compliance analysis of the toy is carried out by an official body with regard to compliance with the directive's significant safety requirements. The CE labelling carried out by the manufacturer or manufacturer's representative in the EEA is their insurance that the toy complies with the requirements in the EU's toy directive. There is therefore no approval.

The importer is responsible for ensuring that the imported toys comply with the requirements.

The importer must be in possession of the manufacturer's documentation of the toy's compliance with the requirements. This is not necessary if a primary importer/agent in the EEA is in possession of the documentation. However, in this case the importer must be able to acquire the documentation at short notice. The importer must ensure that the toy carries a CE mark.

Retailers must ensure that the toys they sell carry CE marks. The sale of non-CE-labelled toys is not permitted. Retailers also have a duty of care. They must assess the

toys they sell and, if necessary, request further documentation from the manufacturer, agent or importer.

Retailers must be able to obtain the necessary documentation from the manufacturer or agent within short time of a request by the regulatory authorities.

In some areas, the authorities in the Nordic countries impose special requirements that go beyond the European requirements. In Norway, it has been prohibited since 2000 to sell toys and a number of other products for small children containing phthalates for use by children aged under three years. In the European regulations, the requirement is limited to 6 phthalates. A new proposal for European requirements on phthalates has now been circulated for comment (see Chap. 4.2).

Voluntary standards and labelling schemes

As far as we know, no other official ecolabelling schemes for toys exist, beyond The Eco Mark, the Japanese ecolabel managed by the Japan Environment Association (JEA). They have criteria for: “Household Textile Products Version 2.7”. Here, the toy must adhere to “Toy Safety Standard (ST2002)” established by the Japan Toy Association, but it is only possible to label toys made from textiles (The Eco Mark, Japanese ecolabel. Accessible from: <http://www.jeas.or.jp/english/> (10.02.2011). On the other hand, there are some labelling schemes that might be perceived as ecolabelling schemes, but that provide only guarantees of, for example, good quality.

One example of a label of this type is the OK label, which Spanish toy manufacturers may use on their toys provided that the products fulfil specific requirements as to quality and “play value” and the WWF Panda label. A toy that carries the Panda label evidences the manufacturer’s support for the WWF’s work to safeguard biodiversity and to protect the environment. The label does not of itself provide any guarantees as to the environmental impact associated with the product.

The EU Ecolabel, Økotex and Bra Miljöval schemes include requirements for textiles but not toys. This means that some types of toys, such as play mats for use in nursery schools, are labelled with EU Ecolabel, Økotex or Bra Miljöval.

The toy industry’s own requirement

A number of toy manufacturers have their own guidelines on health, environment and ethics. The manufacturers’ websites describe the work they do. In addition, the ITIC has drawn up ethical guidelines under which toy manufacturers in China are given the opportunity to obtain a “Seal of compliance” (this is described in further detail in Chapter 4.13).

ICTI is the Chinese toy industry’s initiative to promote fair labour standards and safe working conditions in the production of toys.

SA8000 is an industry independent certification standard based on the ILO’s conventions, the Universal Declaration of Human Rights og UN convention on the Rights of the child.

3 The revision process

The purpose of developing criteria for toys

The primary aim of Nordic Ecolabelling is to help bring about consumption that is less harmful to health and the environment. This can be achieved by guiding consumers and exploiting market forces with a view to achieving health and environmental gains. Since this is a voluntary scheme, the health and environmental requirements can be set at a higher level than the requirements laid down by the authorities.

Children are a vulnerable group, and are exposed to a broad range of products during the course of a day, including toys. Between infancy and their teenage years, children are surrounded by toys. Many risk analyses have been performed on the possible impact on children of various substances that are harmful to health. However, little or no research exists showing the actual effects. What is certain is that there are numerous products in a child's immediate environment that will contain substances that are harmful to both health and the environment.

Moreover, the production of toys involves the use of a large number of substances that are harmful to health and the environment, the raw materials used may have negative environmental effects and when the toys are disposed of, many of the constituent substances may have negative effects on the environment.

When Ecolabelling decided to develop criteria for toys in 2005, one of the goals was to be able to give the consumer the possibility to choose a Swan labelled toy, where strict health and environmental requirements are fulfilled for the entire life cycle.

Review

The first criteria for the ecolabelling of toys were laid down in June 2007. Since the criteria were laid down, Dantoy, Brio and Grom have received Swan labels for their toys. Other manufacturers have also shown interest in Swan labelling their products.

Based on the evaluation report of the criteria document for the Swan labelling of toys, version 1, from 2010, the review has concentrated on the following points:

- a review of RPS (see explanation, chapter 2) for each individual requirement
- clarification of requirements that we have seen are open to interpretation
- expansion of the list of definitions
- preparation of the appendices
- review of requirements for working conditions
- review of the criteria in relation to the new toy directive
- analysis of new criteria model for chemical requirements
- analysis of changes and clarifications in the criteria for furniture that are relevant for toys
- updating of the background document in relation to all changes that are made and where all requirements are clearly explained
- experience from licensing, including control visits in China
- experience from the workshop held in autumn 2010

Suggestions for the new criteria are open for hearing in the period March-May 2011, and are planned to be presented to the NMN in October 2011.

4 The background to the requirements

All requirements in the suggestion for hearing are based on the negative health and environmental effects that a toy can result in from a life cycle perspective, from the production of raw materials and the toy, to the use phase of the toy, and when the toy finally ends up as waste. Unfortunately, there are few or no available LCA studies that compare the health and environmental impact of toys made from different materials.

Toys consist of materials such as plastic, rubber, textiles, stuffing materials, wood and wood-based materials, and metal. Ecolabelling has extensive experience with setting requirements for the included materials in other product areas. In addition, many of the materials are also surface treated. Experience from other product areas combined with an RPS analysis of each material (see chapter 2.1) has been the basis for the requirements that are set for Swan labelled toys. Even if both relevance (R) and potential (P) exist, it is not always relevant to set requirements if there is no steerability (S).

Different materials have different net weights, and are included in toys in different quantities.

4.1 General requirements

Description of the toy and its production (R1)

The criteria document imposes requirements on the materials used in the product for which a licence is sought. To allow a rapid overview to be gained of the requirements that are relevant to the individual product, the toy must be described with details of the constituent materials and their weight. If a licence is sought for a group of toys with different designs and appearances, but where the constituent materials are the same, information may be provided on one or more representative products (see the example in Appendix 2).

When completing Form 1 in the criteria document, the manufacturer of the toy will quickly see which requirements will need to be fulfilled by the product in question. In addition, separate forms have been drafted for completion by any subcontractors or chemical suppliers. These forms have been included in order to facilitate the application process, although equivalent documentation may be accepted. All requirements must be fulfilled, and the documents must be signed by firms with sufficient information on the product or the ingoing raw materials or chemicals.

In addition, the production process for the product must be described, including subcontractors used for any constituent materials. This can be described in the form of a flow chart.

Requirements of the authorities (R2)

Comprehensive requirements laid down by the authorities currently exist for toys. All toys sold in Europe must fulfil EU Directive 2009/48/EEC, and other directives that cover electrical toys.

RPS analyse av sikkerhetskrav:

TABELL

Hvert år skades 350 000 barn under fem år innenfor EU som et resultat av bruk av barneprodukter som stullebord, barnestoler og leker. Innenfor EUs medlemsland pågår et arbeid med å gjøre barns leker sikrere, og det finnes et EG-direktiv som sier at medlemslandene skal utarbeide europastandarder for de produkter som er aktuelle.

Alle leker som selges i Europa skal være merket med det europeiske CE-merket. Miljømerking kan eventuelt komplimentere, ikke erstatte, CE-merkingens sikkerhetskrav. Svanemerking kan forsikre konsumenter om at leken er testet i henhold til CE-merkingens standarder og krav. Det er imidlertid viktig at miljømerking ikke blir ansvarlig for å "godkjenne" produkter og vurdere om de riktige sikkerhetstestene er utført. Her må vi basere oss på uavhengige testinstitusjoner.

Enligt Konsumentverket i Sverige är de allvarligaste olycksriskerna med leksaker att småbarn stoppar i sig något som fastnar i halsen och att barn skadar sina ögon eller sin hörsel. Leksaker kan dock skada sin användare på olika sätt, men säkra leksaker ska inte skada sin användare på grund av sin utformning. Leksaker ska inte vara utformade på ett sådant sätt att användaren eller annan persons hälsa och säkerhet riskeras.

I EUs leksaksdirektiv finns det fastställt vilka säkerhetskrav som leksaker måste uppfyllas. Kraven i EUs direktiv omfattar bland annat krav på mekaniska och fysikaliska egenskaper, brännbarhet, migrering av tungmetaller, ljudnivåer av ämnen. Vissa leksaker ska också ha varningstext eller åldersmärkning då leksaker för äldre barn kan vara farliga för små barn.

Om en leksak är CE-märkt försäkrar leksakstillverkaren att leksaken uppfyller EUs leksaksdirektiv gjennom en overenstemmelseserklæring.

Fragrance/scent (R3)

A number of toys contain fragrance, not only to make them attractive to children but also in some cases to conceal smells generated by the ingoing materials.

Nordic Ecolabelling imposes requirements on fragrances used in a wide range of products that are intended to come into direct contact with the consumer. The background to this is that many of these substances are known to cause allergies

In all Ecolabelled toys, fragrance is forbidden.

A study conducted by the Danish Ministry of the Environment found that 18 of the 26 substances on the EU list of allergenic substances were present in the studied toys. Phthalates (particularly DEHP), organic solvents and a flame retardant were also found.

Toys contain a wide variety of chemical compounds. Some of these substances may migrate if they come into contact with mucous membranes and the digestive systems (the child chews the toy), skin (the child touches the toy) or the respiratory passages (the child smells the toy).

The use of fragrances in toys is not essential. There is an increasing tendency to add fragrance to products of all types, as a result of which the child's overall exposure to chemicals increases. What effect this will have on children is not known. We know that during the course of their lives a very high proportion of the population will develop asthma, allergies and other sensitivity reactions.

Allergenic fragrance substances

Using various methods including Patch testing, the EU's Scientific Committee for Cosmetic Products and Non-Food Products intended for consumers ((SSCNFP), now known as the SCCP: The Scientific Committee for Consumer Products) has drawn up a list of 26 substances that have a particularly high potential for releasing allergenic reactions. This does not mean that these compounds have a sensitising effect, i.e. create allergic reactions in persons who were previously not allergic. The list has been subject to a great deal of criticism because it contains substances with widely varying allergenic properties. Thus the highly reputed Øko-test institute in Germany has found it necessary to distinguish between the substances on the grounds of their potential for unfortunate reactions. Other sources maintain that many of these substances will only produce unfortunate reactions in isolation, whereas the reactions are far lower or non-existent when they occur in a matrix, i.e. together with other substances that they belong together with.

Nevertheless, the SCCP has not yet concluded that it is necessary to revise the list or to differentiate its advice with regard to the 26 substances. When used in cosmetic products in quantities in excess of 0.01% (individually) of the product, the substances must be declared on the label to allow allergics and other hypersensitive persons to avoid products that create problems for them.

These 26 substances are not the only allergenic substances found in perfumes. Other fragrance substances have not been included amongst the selected substances, for example because they are less widely used and are accordingly not tested. The classification R42 (May cause sensitisation by inhalation) is particularly appropriate to fragrance substances. However, R43 (May cause sensitisation by skin contact) is also pertinent. Substances of this type have been shown to have allergenic properties and should for precautionary reasons not be permitted in toys.

Nitromusk compounds

Musk xylene (MX), musk ketone (MK) and musk moskene (MM) are the most common nitromusk compounds. Musk ambrette (MA) and musk tibetine (MT) also occur frequently. For health reasons, the use of musk ambrette, musk tibetine and musk moskene in cosmetic products is prohibited under the Cosmetics Directive , whereas musk xylene and musk ketone are permitted in limited quantities.

Musk xylene is classified as carcinogenic (may cause cancer). It has been proposed that musk ketone should be classified as carcinogenic (may cause cancer). There are indications that metabolites that occur when musk xylene and musk ketone break

down cause endocrine disruption. These substances have been found in fatty tissue and breast milk.

Musk xylene is classified as environmentally harmful, i.e. the substance is highly toxic to waterborne organisms and may cause undesired long-term effects in the aquatic environment. Musk xylene is highly bioaccumulative and not readily degradable in the environment.

It has been proposed that musk ketone should be classified as environmentally harmful, i.e. that the substance is highly toxic to waterborne organisms and may cause undesired long-term effects in the aquatic environment.

Polycyclic musk compounds are used in far greater quantities (4,000 tonnes per year) than nitromusk compounds (200 tonnes per year). HHCB and AHTN are the most common polycyclic musk compounds. They have been found in human blood, fatty tissue and breast milk. They are also suspected of causing endocrine disruption.

The EU is in the process of conducting a risk assessment of polycyclic musk compounds (galaxolide, tonalide). It has been proposed that galaxolide and tonalide should be classified as harmful to the environment.

Nanomaterials (R4)

Nanotechnology, which also includes nanoparticles, is used to a greater and greater extent within many product areas, including areas where the Swan label has criteria.

Nanomaterials and nanotechnology are in use and forthcoming in use in a range of areas where the Swan label has criteria. The authorities, environmental organisations and others are concerned about the lack of knowledge regarding adverse effects on health and the environment. At the same time, nanotechnology can help to solve a range of today's environmental problems, such as through the use of purification and renewable energy.

Nordic Ecolabelling is currently focused on both traditional and new nanoparticles, and sets no requirements that limit the use of nanotechnology in the form of materials with nanostructures. It is only in some current criteria that the active addition of nanoparticles is limited, from a precautionary perspective. Examples include the criteria for chemical construction products (adhesives, filler, outdoor paints, etc.)

4.2 Contents additives

I alle inngående materialer i leketøy (plast, gummi, tekstil, metall, tre og trebaserte materialer) inngår det eller benyttes det kjemikalier med helse- og miljøfarlige egenskaper eller stoffer og tilsetninger som ikke er ønskelig at skal inngå i svanemerkede leketøy.

The following substances and additives are regulated in several of the requirements for the different ingoing materials.

Lead

Lead is a toxic heavy metal with both acute and chronic health and environmental effects.

Lead is acutely toxic to aquatic organisms and mammals, and also has a chronic toxic effect on many organisms, even in small concentrations.

Lead compounds may cause birth defects and pose possible risks of reduced reproductive ability. Much research has been carried out into children's exposure to lead in low concentrations, and it is suspected that exposure to lead can affect children's intellectual development.

Lead is bioaccumulated in fish and mammals. The ingestion of lead often occurs slowly and through long-term chronic exposure. Elimination of lead from organisms occurs slowly.

Humans are primarily exposed to lead through contaminated air and food products. Lead is also found in products such as the cap on electric cables, sailboat keels, blasting sand, paint and varnish. Lead can also be found in other types of imported products. The danger of lead emissions to the environment is often greatest when the products are discarded.

Cadmium

Cadmium and cadmium compounds are acutely and chronically toxic to humans and animals. Most cadmium compounds are carcinogenic.

Cadmium is classified as extremely toxic by inhalation, and carcinogenic. Cadmium also poses a possible risk of impaired fertility and damage to the foetus.

Most cadmium compounds are highly acutely toxic to aquatic organisms, especially in freshwater, and acutely toxic to mammals. Cadmium also has chronic toxic effects in many organisms, even in very small concentrations.

Cadmium is bioaccumulating in fish and mammals, and has a long biological half-life in mammals .

Chrome

Chromium is a metallic element that exists in nature in several forms. The hexavalent form is considered to be the most problematic for health and the environment. It is forbidden to use wood that is impregnated with chromium in most applications. However, chromium is still leaking from treated wood that is still in use, and will continue to do so for a long time to come. Nearly 70 percent of chromium emissions come from CCA-treated wood.

Chromium compounds are persistent and can bioaccumulate in organisms. The health and environmental effects depend on the chromium compounds we are exposed to. The hexavalent form is considered to be more problematic for health and the environment than the trivalent form.

Mercury

Mercury occurs as inorganic and organic chemical compounds, and is one of the most dangerous environmental toxins. Mercury poses a threat to the environment and human health.

Organic mercury compounds are particularly toxic. Mercury compounds are highly toxic to aquatic organisms and mammals. Mercury can cause chronic toxic effects, even in small quantities. Mercury can also cause kidney damage, birth defects and result in contact allergies

Mercury bioaccumulates in fish and mammals, and it takes a long time before mercury is excreted by organisms.

Tin

Tributyltinn (TBT)- og trifenylyltinnforbindelser (TFT) er kunstig framstilte tinnorganiske forbindelser. De er veldig giftige både for mange marine organismer og varmblodige pattedyr. TBT kan gi alvorlige helseskader ved lengre tids påvirkning. Tidligere ble TBT brukt i bunnstoff til skip og båter. Dette er nå forbudt.

Phthalates

Ftalater brukes hovedsakelig som mykgjørere i plast, og finnes i mange produkter vi bruker daglig. Noen ftalater er forbudt i leker og småbarnsprodukter.

Ftalater i myk PVC og andre plastprodukter er ikke kjemisk bundet. Dette fører til at stoffene kan lekke ut til omgivelsene fra produkter mens de er i bruk, eller etter at de er kastet. Plastleker med høyt innhold av enkelte ftalater kan føre til at barn eksponeres.

Ftalater kan gi uheldige langtidsvirkninger som fosterskader eller nedsatt fruktbarhet.

Aziridine og polyaziridines

Ethyleneimin (aziridine) is used in polymerization products as monomer for polyethylene imine, as comonomer for polymers, and in paper and textile chemicals, adhesives, binders, petroleum refining chemicals, coating resins, laquers and surfactants.

Halogenerte organiske forbindelser

Halogenerte organiske forbindelser omfatter mange miljø- og helseskadelige stoffer, de er meget giftige for organismer i vann, kreftfremkallende eller helseskadelige på annen måte. De halogenerte organiske forbindelsene er svært lite nedbrytbare i miljøet, hvilket øker risikoen for skadelige effekter fra stoffene.

Forbud mot halogenert organiske forbindelser vil blant annet hindre bruk av bromerte flammehemmere og andre alternative flammehemmere som inneholder halogener som klorerte paraffiner og klorerte fosfatforbindelser (TCPP; TDCP).

Halogenerte organiske forbindelser er tungt nedbrytbare og har negative helseeffekter eller kan gi opphav til forbindelser med slike effekter. Produkter som inneholder halogener vil ved forbrenning kunne friggi halogen som frie radikaler, som igjen virker flammehemmende. Problemet med frie radikaler er at de kan danne tungt nedbrytbare forbindelser med helseskadelige effekter. Noen flammehemmere er mistenkt for å redusere fertiliteten og for å kunne medføre fosterskader .

PFOA og PFOS

PFCs (perfluorerte organiske forbindelser) er en stor gruppe kjemiske stoffer som består av flere hundre forbindelser. PFOS (perfluoroktylsulfonat) og PFOA

(perfluoroktylsyre) brukes vanligvis i impregneringsmidler, tepper, maling og lakk, teflonbelegg og brannskum, blant annet på grunn av vann- og fettavstøtende egenskaper.

PFOS (perfluoroktylsulfonat) og PFOA (perfluoroktylsyre), har alvorlige helse- og miljøskadelige effekter.

PFOS er klassifisert som miljøskadelig, kreftfremkallende, og reproduksjonsskadelig og er forbudt i brannskum, tekstiler og impregneringsmidler. PFOS blir forbudt i brannskum i EU fra 2011.

PFOS og PFOA er giftige, persistente og har bioakkumuleringspotensial.

Bisfenol A forbindelser (BPA)

Bisphenol A (CAS No. 80-05-7, 4,4'-isopropylidenediphenol, or 4,4'-(1-methylethylidene) bisphenol) is used in the production of chemicals and chemical products in paints, varnishes and adhesives, and in the production of plastic products. The bulk of the amount of bisphenol A produced in the EU is used in the manufacture of polycarbonate plastic. This type of plastic is used in plastic containers for food and beverages, electronic devices and car accessories.

Bisphenol A (BPA) can migrate in small amounts into food and drink that is stored in materials containing the substance, but there is considerable uncertainty about the harmful effects that BPA can have.

The National Food Institute in Denmark (DTU) has reviewed extensive animal studies with bisphenol A, and whether BPA has an adverse effect on the development of the nervous system or behaviour in new-born rat pups. DTU concluded that there is no clear evidence that BPA has any harmful effect on the types of behaviour that were examined, but that there is also some uncertainty linked to the harmful effects of BPA. In Denmark, a ban on PBA in food contact materials has been introduced, which is targeted in particular at 0-3 year olds (baby food packaging, baby bottles, sippy cups), with a precautionary principle as justification.

The EFSA (European Food Safety Authority) believes that exposure to BPA for both adults and new-borns is way below the TDI (Tolerable Daily Intake) of 0.05 mg/kg of body weight (the limit was set by EFSA in 2006). Despite Denmark's ban on PBA in products for 0-3 year olds, the EFSA has concluded that the TDI limit will currently remain unchanged.

Polycarbonate plastic is therefore not included in toys that may be used by children in play involving food (K5).

Bisphenol A compounds must not be included in the chemicals used in the treatment/modification of wood (R24), chemical products included in wood-based materials (K32), chemical products used in the surface treatment of solid wood and wood-based panels (R35), and substances that are included in adhesives (K53).

Biocidene klorfenoler (deres salter) og dimetylfumarat (DMF)

Klorfenoler

Dimetylfumarat er et antimuggmiddel som kan gi omfattende og alvorlig eksem. I 2009 innførte EU et midlertidig forbud mot produkter som inneholder dimetylfumarat, DMF .

Isothiazoliner og CMIT/MIT

Isothiazolin biocider og derivater som metylisothiazoliner (MIT) og klormetyl isothiazolin (CMIT) brukes vanligvis som konserveringsmiddel for å kontrollere mikrobiell vekst i vannholdige løsninger. En av disse som er vanlig i bruk er Kathon som er en blanding av CMIT/MIT i blandingsforholdet 3:1. En annen isothiazolin, Sea-Nine 211 (4,5-dichloro-2-n-octyl-4-isothiazolino-3-one, DCOI), har hurtig erstattet tributyltin som bruk i blant annet skipsmaling.

Isothiazoliner er bl.a. meget toksisk for fisk. Andre studier har vist at MIT er allergisk, cytotoxisk og nevrotoksisk.

Alkylfenoler, alkylfenoletoksilater eller andre alkylfenolderivater

Alkylfenoletoksilater (APEO) og alkylfenolderivater må ikke anvendes i miljømerkede leketøy. APEO kan forekomme i bindemidler, dispergeringsmidler, fortykningsmidler, skumdempere, pigmentpastaer, voks m.m.

APEO er ikke lett nedbrytbare og de har tendens til å bioakkumulere.

CMR forbindelser (Kreftfremkallende, mutagene og reproduksjonsskadelige)

Nordisk Miljømerking har et ønske om å begrense bruken av CMR forbindelser i størst mulig grad og har derfor inkludert disse forbindelsene i kravene til materialer som inngår i leketøy. Dette kravet er en ytterligere begrensning i forhold til klassifiseringskravet.

Flyktige organiske forbindelser

Flyktige organiske forbindelser giver anledning til særlig bekymring på grund af deres ibrørende egenskaber. "Organiske opløsningsmidler kan optages gennem lungerne og huden og give skader på en række organer. Skaderne kan være akutte eller kroniske.

Akut skadevirkning efter indånding af dampe viser sig bl.a. som hovedpine, træthed m.m. Organiske opløsningsmidler kan desuden irritere slimhinderne i øjne, næse og hals. Organiske opløsningsmidler affædter huden og kan give eksem. Efter langvarig udsættelse kan organiske opløsningsmidler medføre kroniske skader på hjerne og nervesystem. Symptomer kan være hukommelsessvigt, nervøsitet og irritabilitet og efterhånden sværere psykiske ændringer, f.eks. depression. Visse organiske opløsningsmidler giver andre uoprettelige helbredsskader som f.eks. kræft og reproduktionsskader (fosterskader). Desuden bidrager visse organiske opløsningsmidler til drivhuseffekten, visse til fotokemisk ozondannelse og visse til nedbrydning af ozonlaget.

Flygtige aromatiske forbindelser

Flygtige organiske stoffer, hvor en eller flere benzenringe indgår, kaldes flygtige aromatiske forbindelser, disse er meget stabile. Udtrykket 'aromatiske forbindelser' beskriver blandt andet benzen, toluen, blandede xylener, orthoxylen, paraxylen, metaxylen.

Formaldehyd

Produkter må ikke aktivt tilsættes formaldehyd (CAS-nummer 50-00-0) eller formaldehydfraspaltende stoffer. Formaldehyd er et giftigt og sensibiliserende stof, der har en kræftfremkaldende effekt og skal derfor udelukkes i så vid udstrækning som muligt.

4.3 Plastic and rubber

Plastic toys or toys containing plastic and rubber make up a large portion of the overall toy market and the category encompasses toys for all age groups. Plastic toys can be anything from simple building blocks to complicated construction sets. One and the same toy may contain many different types of plastic and rubber.

Since plastic and rubber may make up the entire toy or simply a small part, it is important to impose requirements that take account of the toy's overall effect on health and the environment. This is achieved by assessing the areas in which it is relevant to impose requirements. Requirements may be imposed on the extraction and production of the raw material, the type of raw material used, the additives used, or to the possibilities for recycling the finished product. The potential for improvement within the various areas has also been considered by evaluating, in environmental terms, if any particular type of plastic is more favourable when viewed from the perspective of the points discussed above. Finally, the question of whether it is realistic to expect the requirements to be fulfilled is assessed, e.g. whether manufacturers can choose replacements for substances that are harmful to health and the environment.

General comments on plastics

plastics are a very heterogeneous group of materials, and the various types of plastics have different properties, areas of use and are produced by different methods. There are two main groups of plastics: thermoplastic and thermosetting plastic.

The thermoplastics consist of long-chained or branched molecules and retain their mouldability. They can be reheated and remoulded. This is not possible with thermosetting plastics. Their molecules form three-dimensional networks, which are chemically hardened during moulding. The thermoplastics are dominant in terms of both number of plastics and quantities. Those that are easiest to work with, reasonably priced and used in large quantities are known as volume plastics (PE-polyethylene, PP-polypropylene, PS-polystyrene, PVC-polyvinyl chloride etc.). Materials with special properties that are used for more demanding functions, are termed engineering plastics or technical plastics (PA-polyamide, PC-polycarbonate, etc.). These are frequently more difficult to work into products and are more costly.

Most plastic materials contain additives, which may be organic or inorganic compounds that change the properties of the plastics. The following types of additives are common: stabilisers (increase the resilience of the plastic), fire-retardants, lubricants (improve properties during moulding), plasticisers (e.g. phthalates), fillers, additives that reduce static electricity, blowing agents (added to introduce gas pores in the plastic) and reinforcement (increases strength, material is referred to as a composite).

What types of plastic and rubber are used in toys?

The market for plastic toys (all-plastic products or products containing plastic and rubber) comprises a large number of types of toys for all ages. Accordingly, the requirements generally cover all types of plastic and rubber. Considerable research is conducted into plastic and new materials are launched on the market on a regular basis.

Many manufacturers such as Dantoy, Brio, Leika and Lego provide information on the materials used in their toys on their official websites.

The background to the requirements imposed on plastics and rubber

Requirements R5-R10 apply to plastic/plastic parts and rubber present in toys in quantities in excess of 1% by weight.

Description of material (R5)

Plastic/plastic parts (including recycled plastic) and rubber that is included in the toy with more than 1 weight% shall be described by the manufacturer of the material.

Plastic (including recycled plastic) and rubber can contain substances harmful to health and the environment. To gain an overview of the plastic/rubber materials that are included in the toy, the manufacturer must provide information about the following:

- Type of polymer (plastic) and % share of filler in the polymer
- Share of recycled plastic included, and where it came from
- Whether the plastic part is made of PVC, and if necessary an explanation of why PVC must be used for safety reasons
- Whether colourants (K9) and odour substances (K10) are added to the plastic material

Recycled plastic

Recycled plastic is plastic from used products or used packaging. Recycled plastic provides a generally positive environmental effect. Raw materials are used several times before they become waste. The problem with recycled plastic is that the plastic can contain contaminants such as heavy metals and other undesirable chemicals. The same requirements are set for recycled plastic as for virgin plastic.

Polyvinyl chloride (PVC)

Polyvinyl chloride (PVC) is used in numerous different plastic toys. PVC is a cheap material and is suitable for use in a wide range of toys. Both hard and soft (containing

plasticisers) PVC is used in toys. The main problem areas associated with PVC are dioxin emissions, additives and waste processing.

Swan labelled toys cannot contain PVC, with the exception of for areas where PVC is the best choice of material for safety reasons (e.g. cables). The reason that PVC is permitted in wiring is based on feedback concerning a variety of problems associated with PVC-free wires. PVC-free wires delivered by various cable manufacturers can in some cases be too stiff, or unable to withstand being stepped on. From a safety perspective, it is important that exposed wires must be able to withstand heavy strains. PVC-free cables are primarily best suited for use in areas in which the wiring is fixed and remains in place. The advantage of using PVC in wiring is that it has insulating properties, is capable of withstanding variations in temperature and has inherent flame-retardant properties, as a result of its chlorine content.

When PVC is used, the other requirements applicable to plastics must be met, with the exception of the ban on the use of phthalates. No other requirements but the phthalate requirements laid down by the authorities will apply to PVC wiring.

Polycarbonate

Polycarbonate (PC) is a transparent thermoplastic that is used in everything from airplane windows, CDs and store windows. PC is used in products that must be durable and transparent.

Bisphenol A compounds are used in the production of polycarbonate. There is great uncertainty around the harmful effects that bisphenol A may have. Based on a precautionary principle and the uncertainty around bisphenol A, polycarbonate plastic is not permitted for use in toys that may be used by children in play with food.

For more background information about bisphenol A, see chapter 4.2 Additives and forbidden substances under bisphenol A compounds.

Classification of substances included in plastic and rubber (R6)

Generally, the requirements of the authorities as contained in the Toy Regulations take the form of a requirement as to chemical properties. Toys shall not contain, release or form substances or products classified as harmful to health in accordance to the applicable regulations on labelling, sales etc. of chemical substances and products that may pose a hazard to health (Regulations on the labelling of hazards to health), or substances and products with equivalent properties in a concentration or form that may pose a hazard to the health of children. The requirements in the criteria document pursue the requirements of the authorities by posing quantitative, substantive requirements. Nordic Ecolabelling has difficulty in relating to requirements that are formulated as "... in a concentration or form that may pose a hazard to the health of children".

The requirements contain a general prohibition against the use of substances or mixtures of substances that are classified as carcinogenic (R45, R49, R40), harmful for reproduction (R46, R40) and/or harmful for fertility (R60, R61 R62, R63) in accordance with the EU Dangerous Substances Directive 67/548/EEC and the Dangerous Preparations Directive 1999/45/EC as amended.

Forbidden substances (R7)

The following additives shall not be actively added to plastic/plastic parts or rubber that is included in Swan labelled toys.

- Additives based on lead, cadmium, chrom VI, mercury and compounds of these elements, tin and organotin compounds
- phthalates
- aziridines
- halogenated organic compounds
- PFOA (perfluorooctanic acid and salts/esters thereof) and PFOS (perfluorooctane sulphonic acid and compounds thereof)
- the biocides chlorophenols (their salts and esters)
- carcinogenic, mutagen and reproduction damaging compounds
- isothiazolines
- CMIT/MIT (2-methyl-4-isothiazoline-3-one) more than 0,0015 weight%
- alkylphenols, alkylphenoethoxylates or other alkylphenol derivatives
- volatile organic compounds > 1%
- biocides or bioproducts must not be added to the surface of the finished toy or parts of the toy with the purpose of adding a disinfecting or antibacterial effect.

Bakgrunn for kravene står i kapittel 4.2 – tilsetninger og forbudte stoffer.

Nitrosamines in rubber (R8)

In toy Directive 2009/48/EC, specific limits are set for N-nitrosamines and nitrosable substances in toys intended for use by children under the age of 36 months or in other toys, which are intended to put in the mouth. These limits are 0.05 mg/kg for N-nitrosamines and 1 mg/kg for nitrosable substances. Nitrosamines and nitrosamine forming substances are suspected to be carcinogenic. Nitrosamines are by-products formed during the production of rubber. The contents of nitrosamines and nitrosamine forming substances is limited, by authority requirements, for bottle teats and rubber soothers, or other elastomers.

In Swan labelled toys, the content of nitrosamines must not exceed 0.01 mg/kg of rubber. The content of nitrosamine forming substances shall not exceed 0.1 mg/kg of rubber.

For nitrosamines, the text “intended to be put in the mouth” is restricted to the use of toys such as balloons, where this is a big problem, and excludes cycle tyres, where there is no problem.

For toys intended for children over 3 years of age, there are currently no requirements laid down by the authorities regarding the content of nitrosamines and nitrosamine forming substances. Nordic Ecolabelling sets general requirements for the content of nitrosamines, regardless of the guideline age for the toy. The requirements set for the content of nitrosamines and nitrosamine forming substances is equivalent to the requirements for bottle teats and rubber soothers, or other elastomers.

Surface treatment of plastic/plastic parts, rubber end pigment

The requirements regarding colourants cover colourants that are used in the colouring of plastic and rubber. . The additives requirements in R6 and R7 must be fulfilled by all colourants.. Surface treatment of plastic refers to treatment of the plastic part. This can be, for example, powder coating, spray coating, or painting.

In addition, there is a requirement that pigments used for surface treatment in plastic/plastic parts and rubber must be approved under the EU guidelines on materials that come into contact with food/ or pigments must be approved by the Food and Drug Administration (FDA).

The official requirements applicable to materials that come into contact with food will apply to some toys, for example plastic kitchen sets and other kitchen equipment. Although other plastic toys are not included, in the case of toys intended for use by children under the age of three there is a requirement that the provisions of the regulations must be met. Children in this age group put toys in their mouth and will be directly exposed to any substances migrating from the toy that are harmful to health and the environment. The general rule in the regulations is that migration of substances to food is to be avoided, and accordingly, it will be relevant to impose the same requirements on materials that come into direct contact with mucous membranes in the mouth..

Areas in which no requirements are imposed

The production of plastic materials can be energy demanding, but this depends on the type of plastic produced. Because it is difficult to obtain sufficient data about the amount of energy consumed in plastic production, no requirements will be imposed with regard to raw material production.

Plastics can also be produced using renewable raw materials. However, the knowledge and controllability required to impose requirements with regard to this type of raw material is not available at present.

4.4 Textiles, skins and leather

Textile fibres, skins and leather are used in a variety of different toys and are the main material (on the surface) of soft toys, such as plush animals. Plush animals come into close contact with the child's skin and may, in some cases, be close to the child at night. Accordingly, it is important to impose requirements on textiles, skin and leather even if in terms of weight the material does not make up a major part of the toy. The net weight of textile fibres is low.

Requirements R11-R14 apply to textiles. If the textile is Swan-labelled or labelled with the EU Ecolabel, all requirements will have been fulfilled, except the fragrance requirements if such substances have been added. The EU Ecolabel rightly enough does not set requirements regarding organic natural fibres. In the case of non-eco-labelled textiles, the relevant requirements must be fulfilled.

The requirements are based on the requirements in Öko-tex 100. Öko-tex 100 is a German standard for textiles and skins. Products labelled with the Öko-tex label must

not contain allergenic colourants or colourants that may emit carcinogenic substances. The label also provides a guarantee that the product has been tested to determine the presence of chlorinated phenols, phthalates, organic tin compounds etc. The standard has several levels, levels 1–4, where level 1 (baby) imposes the strictest requirements as to the content of substances that are harmful to health and the environment, whereas level 4 permits somewhat higher quantities/ Öko-tex 100 applies only to residual substances in the textile and does not impose requirements to the chemicals used in the production process.

Textiles made of artificial fibres (polyester, elastane etc.) and textiles made of wool may be present in Swan-labelled toys if the textile fulfils level 1 of the requirements in the Öko-tex 100 standard. This requirement can be documented either with the aid of an Öko-tex 100 certificate or with equivalent documentation. In the case of this type of textiles, Ecolabelling has concluded ~~in this first version of the criteria~~ that the most important factor in avoiding negative effects resulting from children's use of toys is the content of the end product.

Vegetable natural fibres (R11)

In the case of vegetable natural fibres, (cotton, linen, hemp etc.) used in textiles present in toys, however, the requirement that the fibre must be cultivated organically or in a process that is undergoing a phase of transition to organic production has not been changed. This represents a change in the stringency of the requirements. The reason for this is that non-organic cultivation of this type of fibre entails a major impact on the external environment, and exposes workers to substances that are harmful to their health. This entails that textiles produced from vegetable natural fibres are subject to both cultivation requirements and to the requirement that the end product (before printing) must fulfil the requirements imposed in the Öko-tex 100 standard, level 1.

The requirements applicable to vegetable natural fibres and skin and leather are taken from the EU Ecolabel criteria for textiles and “the Swan-labelling of textiles, skin and leather, Version 3”.

Skin and leather (chrom and COD) (R12 and R13)

The tanning of leather can entail major effects on health and the environment. As a consequence, skin and leather must fulfil the applicable Swan requirements for emissions of chromium (III) and COD.

Öko-tex 100 (R14)

The requirements in the Öko-tex 100 standard, level 1, must be met.

Printing (R15)

The requirements for the printing of textiles in Öko-tex 100 are extremely comprehensive requirements. In these criteria, it is therefore only unprinted textiles that must fulfil the Öko-tex 100 requirements.

For printed textiles, it is a requirement that the printing paste can only contain a maximum of 5 weight% of organic solvents. Requirements are also set regarding the maximum content of impurities in pigments (arsenic, barium, cadmium, chromium, mercury, lead, selenium, antimony and zinc).

Plastisol-based printing is not allowed.

For more background regarding organic solvents and impurities in pigments, see chapter 4.2 - additives and forbidden substances.

4.5 Padding materials

Padding materials are present in a wide variety of toys, nearly always in combination with textiles. Although padding materials will not come into direct contact with the child, the child may be exposed to substances that migrate from the padding materials.

TABELL

All the requirements applicable to padding materials in the consultative document (except the requirements applicable to fragrances) have been taken from the EU Ecolabel criteria for mattresses. The background is described in “LCA and criteria proposals final report for the EC Report number: R3535924.W05/EJD”. The polyester requirements have been taken from the EU Ecolabel textile criteria.

It has been decided that the focus of the criteria should initially be the content of formaldehyde (R16), antimony in polyester (R19) and, if applicable, any colourants (R18) and fragrance substances added. These requirements must be fulfilled even if the padding material makes up only a small part of the toy. This is justified on the grounds that these chemicals will be present in the toy and may, in some cases, migrate. The background to the formaldehyde requirement is described in Chapter 4.2.

In addition, there is a requirement applicable to the blowing agents (R17) used in the production of padding materials. Traditionally, ozone depleting substances have been used as blowing agents.

Colourants must not be used in padding materials.

4.6 Wood and wood-based materials

Wood and/or wood-based materials may be present in toys in varying quantities. There are traditional wooden toys, untreated or surface-treated, where wood constitutes the only material in the toy. Wood-based materials also occur in toys made up of different materials.

Requirements R20-R24 apply to wood, while requirements R25-R32 apply to wood-based materials.

The requirements have been compiled on the basis of “The Swan-labelling of durable wood”, “The Swan-labelling of furniture and fitments”, “The Swan-labelling of outdoor furniture and playground equipment”, the EU Toys Directive and information compiled from alliances. There are benefits in coordinating the requirements with the requirements applicable to similar materials in other sets of criteria. This will allow the experience garnered from products that have already been approved/certified to be applied in connection with the ecolabelling of toys.

The requirements are made stricter when the materials are present in a quantity that exceeds 10% of the total weight of the product. The 10% limit has been taken from the criteria for furniture and fitments. This reflects the wish to maintain a focus on those materials that make up the greatest proportion of the product.

Certified wood (R22)

The requirement regarding the proportion of certified wood is changed. Forestry has an impact on the environment. To reduce this environmental impact, requirements are set that products that are based on raw materials from moulder shall contain at least 70% wood that is certified in relation to a standard for sustainable forestry. (The limit of 70% is harmonious with established certification systems (e.g. FSC).

According to Nordic Ecolabelling's requirements, fibre raw materials must not derive from forests that are considered worthy of protection. In practice this requirement is applied by reacting to signals received from, for example, environmental organisations that wood may be suspected of having been taken from forestry operations that destroy forests in need of protection. By monitoring information on forestry operations worldwide, Nordic Ecolabelling receives information on how forestry is conducted in various regions of the world. However, it should be noted that Nordic Ecolabelling itself does not have a global presence and does not monitor forestry operations worldwide, but is dependent upon information received from independent organisations, environmental organisations and NGOs.

Nordic Ecolabelling aims to contribute to sustainable forestry operations (in ecological, economic and social terms). From a life cycle perspective, forestry makes up an important part of the environmental impact of wooden products. Wooden raw materials are present in a number of the products that are ecolabelled, and it is important that renewable raw materials should be cultivated/used in a sustainable fashion. Regrettably, forestry is not sustainable at present, the consequences of which will, for example, include a reduction in diversity, soil erosion, the displacement of indigenous peoples etc. These problems occur both in the coniferous forests of the north and in the rain forests of the south. The world's tropical forests are being depleted at a rapid rate. Even by the next generation the tropical forests may be gone for good, and they can never be recreated through planting.

Accordingly, the requirement is imposed that wood raw materials in ecolabelled products must originate in certified sustainable forestry operations.

The certification of forestry to a standard is one means of adapting forestry operations to environmental standards. Nordic Ecolabelling has not developed its own forestry requirements; rather it has opted to impose a requirement that appropriate standards and certifications of sustainable forestry operations be applied.

In recent years, all Nordic Ecolabelling's criteria for products that contain wood have set requirements that part of the wood used shall be certified. Requirements for certified wood can contribute to increased demand for such materials. This can then contribute to ensuring increasing areas of forest with sustainable forestry.

Some of the current certification schemes (FSC/PEFC) guarantee that 70% of all certified wood comes from certified forests. Based on this, a limit of 70% has been previously used by Ecolabelling in connection with the development of criteria for furniture and interiors. Experience from the requirements shows that a higher percentage share of certified wood has been problematic, since this is difficult to document.

Traceability (R20)

Requirements applicable to information on wood types, country of origin and a declaration that the wood does not derive from forest environments that need protection for biological and/or social reasons supplement the certification requirement. The background to this is to ensure that the remaining 30% of the wood that the certification requirement does not guarantee is also controlled.

Treatment/modification of wood

The use of biocides may result in micro organisms becoming resistant. Accordingly Nordic Ecolabelling wishes to limit the use of pesticides. International agreements already contain prohibitions against a number of these chemicals.

The requirement applicable to chemicals used for the treatment/modification of toys harmonises with the requirements in the criteria for the Swan-labelling of durable wood. The requirement is stricter than the requirements contained in the Swan-labelling of outdoor furniture and playground equipment since there are now manufacturers that fulfil the requirements applicable to durable wood. At the same time, toys can be moved indoors, a factor that reduces the need to treat the wood.

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Biocides (R21)

Requirements are set that state that wood (timber after cutting) shall not be treated with biocides that are classified by the WHO as type 1A or type 1B.

Biocides that are forbidden in international agreements include substances that are forbidden in countries through reciprocal agreements with other countries. Most of these substances are excluded through the other requirements that apply for solid wood. If a biocide fulfils the other requirements but is forbidden in international agreements, it cannot be used if the wood shall be used in Swan labelled products. In addition, biocides must be approved for use in the country where they are to be used.

Wood-based materials (R23-R30)

Nordic Ecolabelling has developed criteria for building-panels and for furniture and fitments. The requirements applicable to wood-based panels in the criteria for toys have been harmonised with the requirements in these earlier criteria documents. Requirements regarding energy and emissions to water from the criteria for building boards are introduced because we also want to set requirements for parts of the production process.

The main areas of focus for wood-based materials are:

- certified wood/traceability
- the content of formaldehyde in the panel
- energy and emissions to water
- the presence of substances harmful to health and the environment in chemical products

Certified wood/traceability (R22 and R25)

As well as virgin raw materials, wood-based panels may contain sawdust/wood shavings and/or off-cuts from sawmills and/or untreated wood from demolished

structures and/or recycled fibres. Nordic Ecolabelling wishes to encourage the use of wood fibres that would otherwise be incinerated and/or disposed of in landfill sites.

The requirement applicable to the proportion of certified wood is determined on the basis of the following formula:

Requirement applicable to certified wood (%) = $- 0.6X + 30$

where X = the proportion of sawdust/wood shavings and/or off-cuts from sawmills and/or untreated wood from demolished structures and/or recycled fibres.

This entails that the requirements as to certified wood will cease to apply if $X \geq 50$. If the product consists exclusively of virgin materials, the required proportion of certified wood will be 30%.

The remaining 70% is encompassed by the traceability requirement, in the same way as in the case of wood.

Formaldehyde (R26)

Wood-based materials may in some cases contain large quantities of formaldehyde. A number of classification systems exist for labelling panels on the basis of their formaldehyde content. These include the Danish and Norwegian indoor climate labelling schemes, the Finnish classification system “Emission Classification of Building Materials”, Dansk Pladekontrol klasse E1 and the Swedish P-Labeling Scheme. The requirement applicable to the content of formaldehyde in wood-based panels harmonises with all these classification systems and will accordingly be readily documentable.

Energy consumption (R26)

Energy is used in all stages of the life cycle and the consumption of energy is directly related to climate emissions. In this context it is relevant to distinguish between energy consumption relating to the production of raw materials, energy consumption relating to the process of producing the furniture itself and energy consumption relating to both the transportation of raw materials and the distribution of the finished furniture. The primary production of metals and plastic materials and the production of raw materials for certain types of adhesive are particularly energy-intensive processes.

The requirements are copied from the furniture criteria. Since this is the first time that requirements will be set for energy in toys, the requirement level is set relatively low to give manufacturers time to adjust to the new situation, and due to a lack of basic data.

The requirement consists of two parts:

In the one part, it is required that the energy consumption (both electricity and fuel consumption) is less than or equivalent to the stated limits. The limits are stated in appendix 10b of the criteria document. The second part consists of a formula requirement, where a certain number of points must be achieved. The formula covers various environmental parameters that are divided by a factor for each parameter, and totalled as a total number of points. To fulfil the requirement, the number of points for the wood-based material must be at least equal to the given limit.

The requirement favours low energy consumption and the use of renewable fuels. A focus on low energy consumption is important in relation to the climate challenges currently facing the world. There is a strong link between energy consumption and human-created climate change, because a large part of the world's energy consumption is currently covered by fossil fuels such as oil, gas and coal. Reduced energy consumption is therefore an important matter for Nordic Ecolabelling.

Chemical requirements (R28-R30)

Halogenated organic binding agents, halogenated organic flame-retardants, polychlorinated biphenyls, alkyphenols, phthalates, aziridine and polyaziridines and pigments as additives based on lead, tin, chromium VI and mercury and their compounds can rarely be traced in wood-based panels, but a catch-all requirement relating to these undesired chemicals has been put in place to ensure that Nordic Ecolabelling can be certain that these substances will not be present in the chemical products.

For more background information regarding substances harmful to health and the environment in chemical products, see chapter 4.2 - additives and forbidden substances.

TABELL

Contents and additives wood and wood-based materials (R29-R31)

Many wooden toys are treated with paint or varnish (or both). Requirements R30-R33 encompass requirements applicable to chemicals used for the surface treatment of wood and wood-based products.

Generally speaking, there are three methods of varnishing toys: water-based varnish, acid-curing varnish and polyurethane varnish (PU varnish). UV varnish is not suitable for use on toys since it is difficult to cure the varnish on uneven surfaces.

Imposing a requirement that permitted only water-based varnish would not be consistent with the quality requirements to toys. Some toy manufacturers have found that where water-based varnish is used, parts of the varnish may flake off and small children may put these flakes in their mouths.

Acid-curing varnishes and PU varnishes both contain large quantities of solvents, including aromatic solvents. This is problematic, not only in terms of the personnel who varnish the toys, but also because children may be exposed to evaporation of these substances from new toys.

Forbidden substances and additives in solid wood and wood-based materials (R33)

The following must not be added to chemical substances included in products (including foils) that are used in surface treatment:

- Additives based on lead, cadmium, chrom VI, mercury and compounds of these elements, tin and organotin compounds

- halogenated organic compounds (including chloridised polymers, PVC, chlorinated paraffin, fluorine compounds, flame retardants and organic bleaching chemicals)
- the biocides chlorophenols (their salts and esters)
- phthalates
- aziridines
- alkylphenols, alkylphenoethoxylates or other alkylphenol derivatives
- isothiazolines
- halogenated organic compounds
-
- the biocides chlorophenols (their salts and esters)
- carcinogenic, mutagen and reproduction damaging compounds
- The content of aromatic solvents must be less than or equal to 5 weight.
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An alternative to the requirement would be to conduct a chamber test (48 hours) with a consequent analysis of GC-MS to measure the TVOC content. If it can be shown that TVOC is below the given limit of 1200µg/m² of air, the requirement is fulfilled.

The basis for the requirements is stated in chapter 4.2 - additives and forbidden substances.

4.7 Paper, paperboard, cardboard and printed matters

In some toys, paperboard, cardboard and paper make up part of the product, while in other toys paperboard, cardboard and paper make up the entire product (for example jigsaw puzzles).

Ecolabelled paper (R34)

The requirement has been limited to paper that makes up more than 10% by weight of the toy.

Many manufacturers exist who fulfil the requirements for the ecolabelling of paper. It is therefore a requirement that paper included in toys shall fulfil ecolabelling requirements (Swan label or EU Ecolabel).

For background information regarding the requirements for paper and cardboard, see “Background for Basis Module and Chemical Module, 16 September 2003”. A new Basis model and Chemical model are forthcoming in 2011.

Fibre raw material in paperboard and cardboard (R35)

For the background to the board and paper requirements, see “New Basis model and Chemical model for hearing spring 2011”.

See previous chapter (wood) on the reasons for the imposition of requirements as to fibre raw materials. In the case of paperboard and cardboard: Nordic Ecolabelling imposes the requirement that 20% of the fibre raw material must derive from certified sustainable forestry operations. Alternatively, 75% of fibre must be recycled fibre,

shavings or sawdust. The requirement may also be combined, i.e. some wood fibre from certified forestry and some recycled fibre.

Bleaching (R36)

Chlorine gas is used for the purpose of bleaching pulp. Chlorine gas bleaching has virtually disappeared in Europe, although there are still some pulp mills that use chlorine gas for bleaching paper pulp. Chlorine gas is very harmful to the environment. Chlorine gas gives rise to chloro-organic compounds and these affect animals and plants. Dioxins may also be formed during the bleaching of paper pulp using chlorine gas. Dioxins are a collective term for organic chlorine compounds that are toxic and stable, which entails that they do not break down readily in nature.

Emissions of COD (R37)

COD emissions represent one of the major environmental impacts associated with the production of paperboard and cardboard. COD emissions will be most relevant in the case of plants that use virgin fibre in their production of paperboard and cardboard, and the requirement accordingly applies only to products produced from virgin fibre. The level of the requirements has been set on the basis of the most recent report issued by the IPPC (Integrated Pollution Prevention and Control), which states BAT values (Best Available Techniques) for European factories. The requirement may be met either through a level of 3 kg COD/tonne paperboard/cardboard or with the aid of a treatment plant that reduces the COD in the emissions of the factory by 80%.

Printed matter (R38)

Like paper and board, printed matter has long been a priority area for Nordic Ecolabelling. A large number of printers, in both the Nordic countries and elsewhere in Europe, are licensed to produce Swan-labelled printed matter.

Printed matter is often found as an accessory to advanced toys, often together with mechanical toys such as games. In the criteria document for printers, version 4.3, printed matter is defined as follows: "Printed matter is the result of a refinement of the printing material. Processing consists of an image, pattern, text, or similar being printed onto paper or other printing material. I.e. one of the main functions of printed matter is to "carry information". For further information, please refer to the criteria document for printers. For background information regarding the requirements for printers, see "Background document for the ecolabelling of printers, version 4".

Requirement R41 accordingly specifies that printed matter used in toys must fulfil the ecolabelling requirements. Printed matter for toys refers to user manuals that accompany the toy, but not labels or tags.

4.8 Metal

Although there are toys on the market that consists solely of metal, in most products metal makes up only a small proportion of the materials. Aluminium and steel are the most widely used metals.

Metals are not a renewable resource, although metals can be readily recycled. Metals are extracted in mining operations, and although there is both relevance and potential for the imposition of health and environmental requirements on the extraction of metals, controllability is absent.

In the case of metals it will be important to focus on coatings and surface treatments on metal parts that will come into direct contact with the child. Requirement R41 relates to the coating of metals and requirements R42-R43 relate to the surface treatment of metals.

In the criteria for toys, requirements that a certain part of the metal shall be recycled metal are not set, since the expected documentation burden is too great in relation to the environmental benefit which would be achieved.

With a view to promoting the opportunities for recycling metals, other documents focus on the scope for separating metals from other materials in the product without the use of special tools. This is not a relevant requirement in the case of toys since safety is important and the presence of metal parts that are easy to separate from other materials in the toy could represent a hazard to the child.

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Coating of metals (R39)

Requirements are imposed on coatings on visible metal parts, screws included.

The purpose of the requirement is to exclude the use of those substances that are most harmful to health and the environment and the requirement will initially exclude the use of metals that are coated with chromium, nickel, zinc and/or cadmium.

The requirement is clarified in relation to the previous version, in that exceptions are not made for metal parts that can be subject to great physical wear.

Surface coatings (R40)

If they are visible parts, small parts such as screws and hinges are covered by the surface treatment requirement.

The purpose of the surface treatment requirement is to exclude the use of those substances that are most harmful to health and the environment. Requirements are therefore imposed as to the classification of the chemical products that are used

4.9 Electric toys

Electric toys are becoming increasingly common and the selection available for children aged 0-3 years is expanding. Toys that produce light and sound are marketed to the age group 0-3 years as stimulating toys (stimulate the senses of small children). These toys often contain plastics, textile and padding materials.

In addition there are many traditional electric toys on the market that are more suited to children aged over 3 years. Examples of toys of this type include electric cars and trains.

Electric toys may contain any type of material. Accordingly, electric toys will have to fulfil all relevant material requirements (provided in R44-R51) in addition to more general requirements in R1 and R2.

Heavy metals (R42)

Materials (plastics and metal), including flux must not contain lead, mercury, cadmium or chromium (VI) in accordance with EU Directive 2002/95/EC (RoHS, restriction on use of certain hazardous substances). The ecolabelling requirements will not be stricter than the RoHS Directive. The RoHS Directive has not been universally implemented, including in China, but the requirements must be met in the case of products that are to be sold on the European market.

Circuit boards, microprocessors and motors (R43)

Chemicals containing substances that are regulated under the Montreal Protocol must not be used in the end production of motors or in the production of circuit boards. These substances are CFC, HCFC, 1.1.1 trichloroethane and carbon tetrachloride. The substances are used for degreasing circuit boards to ensure that the solder adheres. Water/soap-based washing processes have been developed for use on circuit boards.

Halogenated flame retardants must not be present in circuit boards, microprocessors and motors or in varnish used for the surface treatment thereof. Studies have shown that brominated flame retardants in electrical and electronic products account for some two-thirds of total consumption (mapping conducted by the Norwegian Pollution Control Authority (SFT) during the period July to December 2002). As has already been noted, this type of halogenated compound can have negative effects on health and the environment.

Circuit boards are lacquered to prevent short circuits. The lacquer used for this purpose may (in addition to halogenated flame retardants) contain other substances that are harmful to health and the environment, such as various solvents and bisphenol-A.

LED (R46)

Electric toys may contain light sources. Various light sources are in use.

Ordinary incandescent lamps may be used. No requirements are imposed with respect to this type of light source. The tungsten (W) filament is not regarded as harmful to health and the environment. Halogen bulbs/ may also be used. These bulbs contain tungsten metal and bromine vapour. The bromine vapour has no environmental effects since it reacts and forms inert salts. However, in theory it may be harmful in the event of direct contact. Even so, the chances of these are considered to be so low that the use of halogen bulbs will not be prohibited.

Light Emitting Diodes (LED) are the other light source used widely in toys. LED use little electricity, have a long life and do not get as hot as other alternative light sources. These consist of semiconductors that are in practice built of silicon oxide doped with various compounds. The table below details the most common compounds used for this purpose:

To prevent the use of the most harmful compounds the criteria will prohibit the use in LED production of chemical products that are classified as carcinogenic (R45, R49, R40), harmful for reproduction (R46, R40), genetically harmful (R60, R61 R62, R63), toxic (R23-R28) in accordance with the regulations on the classification and labelling

of hazardous chemicals in force in any Nordic countries and/or the EU classification system 1999/45/EEC (with adaptations and amendments).

Work is under way to develop organic doping chemical for LEDs. However, as far as we are aware none of these are yet available on the market.

Push switches/rocker switches (R47)

Traditionally push switches and rocker switches have been based on the use of a drop of mercury in a tube. The use of switches of this type in Swan-labelled toys is not permitted.

An activation mechanism has recently been developed in which a small spiral spring is fitted inside a cylinder. When as a result of movement the spring touches the cylinder, the electrical circuit is completed and the electronics are activated.

Batteries (R48)

Some electric toys contain disposable batteries that cannot be replaced. These toys will not qualify for a Swan Label since the useful life of the product will be severely limited.

Nordic Ecolabelling has for many years been working on environmental requirements for batteries and many international battery manufacturers produce Swan-labelled batteries. For this reason the requirement is imposed that batteries fitted in the product at the time of sale must be Swan-labelled batteries (alternatively documentation must be provided that the environmental requirements applicable to batteries have been fulfilled). The background to the requirements is provided in “Background document rechargeable batteries/battery chargers 2003-04-02”.

The requirement that disposable batteries must be replaceable has been altered to include the following additional text: “but only with the aid of tools or manual actions involving two simultaneous movements”. This to prevent small children from being able to remove the battery from the toy.

Noise (R49)

The current noise requirements as provided for in the Toy Directive and the associated standard EN 71-1 are as follows:

- All toys: impulse noise (bangs) must not exceed 125 dB at a distance of 50 cm.
- Toys with impulse noise in excess of 110 dB must carry a warning of danger to hearing.
- Rattles and squeaky toys: The sound must not exceed a maximum of 85 db at a distance of 50 cm.
- Toys designed to be held against the ear (e.g. telephones): The sound must not exceed 80 dB at a distance of 2.5 cm, equivalent to 67 dB at a distance of 50 cm.

Ecolabelling has chosen to set specific noise requirements for electronic toys and toy weapons with electronic sound:

- Requirements for electronic toys: 67 dB LpA measured from a distance of 50cm.

- Requirements for toy weapons with electronic sound: 110 dB LpC peak measured from a distance of 50cm.

On application for Swan labelling, it shall be documented that the toy fulfils these requirements in addition to other noise requirements (those set by the authorities).

4.10 Adhesives

Adhesives are used in a variety of toys, either to glue different materials together or in the production of a material (e.g. building panels). The adhesive requirements are taken from Nordic Ecolabelling's criteria document for adhesives and apply solely to adhesives used to glue various materials/parts of the toy together.

Requirements R50-R51 apply to adhesives, with the exception of adhesives used in building panels which are encompassed by requirements R22-R29.

For the background to the requirements applicable to adhesives, see "Chemical construction products, background for ecolabelling for version 1, 29 May 2008".

4.11 Packaging and information for the consumer

Requirements R53 - R56 cover packaging and information for the customer.

Toys are often packaged in a great deal of packaging, both cardboard and plastic. This is in part intended to ensure that the products are able to withstand transportation. However, packaging is also designed with a view to tempt customers.

Several of Nordic Ecolabelling's criteria prohibit double and triple packaging. In the case of toys, the first generation of criteria will not impose requirements on the quantity of packaging, although this will be discussed when the criteria are revised at a later date.

However, the use of PVC in the packaging will be prohibited (see the discussion on PVC in Chapter 4.2.1).

In the case of electric toys there will also be a requirement that customers must be informed about the way in which used batteries should be handled, the duration of the guarantee and of recycling systems for electric toys. In addition the use of Swan-labelled batteries must be recommended. This information may be shown on the packaging or attached as information material.

5 Quality requirements and the requirements laid down by the authorities

Requirements R57-R66 apply to quality and the requirements laid down by the authorities. Requirements R58-R66 are general requirements that are incorporated in all Nordic Ecolabelling's criteria documents. R57 has been specially adapted to toy production.

Working conditions (K57)

The ethical issues relating to toy production are numerous and difficult. They include subjects such as the working conditions in the production premises and the

pedagogical effects of the toy on the child. The ethical requirements in the first generation of the criteria generally focus on the rights and working conditions of production workers. Other issues such as the rights of indigenous populations and animal testing are not covered.

One trend in the toy industry has been that delivery times for products are gradually becoming shorter. Because of the costs involved, buyers do not wish to keep extensive stocks of products. This increases the pressure on the manufacturer to deliver the goods at short notice. Moreover, we are also seeing that the price of toys is stagnating and in some cases falling. At the same time, the cost of raw materials such as plastics, steel and cotton are increasing. This increases the pressure on the manufacturers, and there is a constant battle to find the cheapest areas in which to manufacture. One precondition for cheap production will often be cheap labour. Since we know that suppliers do not wish to increase their prices to end users, the manufacturers are the ones who suffer.

Standards (ICTI and SA8000)

Studies have revealed a number of aspects of the working conditions at production facilities - primarily in non-Western countries - that contravene Western views on what is regarded as acceptable. Some of these are so serious that even fundamental human rights are under threat.

Against this background a number of standards for social responsibility have been introduced. In the toy industry two standards dominate:

- 1) The ICTI Code of Business Practices (ICTI CARE), the industry's own standard (at present applies only to China).
- 2) Social Accountability 8000 (SA8000)/xliv. A worldwide scheme.

At present, there are 763 SA8000 certified production facilities in 47 different countries and 54 different industries. There are 15 SA8000 certified toy manufacturers in China. These have been certified by Det Norske Veritas.

To date, 100 factories have received the ICTI CARE Seal of Compliance. Only one-third of the approved firms want their names published on ICTI CARE's website, but ICTI is working to increase this figure.

The levels of the standards:

SA 8000 certification has two different levels: SA8000 certification or SA8000 Corporate Involvement Program (CIP). SA8000 certification is available to factories that engage in production, whereas firms that sell goods or combine sales and production may participate in the CIP programme.

CIP has two levels:

- SA8000 Explorer (CIP level 1): The firm evaluates SA8000 as an ethical sourcing tool via pilot audits.
- SA8000 Signatory (CIP level 2):
The firm is implemented over time in some or all of the supply chain. The firm communicates implementation process to stakeholders via SAI-verified public reporting.

ICTI Care Process:

ICTI Care Process has two levels. One is standard certification (ICTI CARE Seal of Compliance).

The other level is the Date Certain programme. Firms that participate in this programme undertake to:

- specify the date on which they will formally start to involve their suppliers in the CARE process.
- specify the date from which products will be ordered or accepted only if manufactured in factories certified in accordance with CARE.

Date Certain appears to be comparable with the CIP SA8000 programme.

The content of the standards

The standards specify the requirements that companies must meet and also provide a description of the verification requirements. Verification is by neutral third party certification bodies. The certification bodies must fulfil a number of requirements and be approved ICTI/SA 8000 at central level.

The standards contain requirements relating to:

1. Prohibition against child labour.
2. Prohibition against slave labour and the use of prison labour.
3. Health and safety requirements.
4. Freedom to unionise and collective bargaining.
5. Discrimination.
6. Disciplinary practice (punishment).
7. Working hours.
8. Pay.
9. Management systems.

On the whole, ICTI requires local legislation to be followed, although in some cases absolute requirements are laid down such as a minimum age of 14.

SA 8000 specifies a maximum working week of 48 hours and 12 hours overtime per week. ICTI specifies only that local laws must be followed, and where no such laws exist requirements must be in place to secure that working conditions are humane, safe and productive.

SA 8000 requires that workers should as a minimum receive the statutory minimum wage or the minimum wage applied in the industry. In addition, however, the pay received for a normal week's work must be sufficient to meet basic needs as well as a small surplus.

ICTI gives workers the right to unionise in accordance with local laws. SA 8000 specifies that workers have the right to form trade unions and to bargain collectively. It is also specified that in countries where such rights are limited the company must facilitate alternative means for the workers to unionise and negotiate in a free and independent way.

Working conditions

Chapter 5, O1, of the consultative proposal, contains requirements applicable to working conditions. Under this requirement the licence holder must ensure that the production of the toy (the end product) is conducted in accordance with a standard that is based on the ILO's convention on child labour, forced labour, health and safety, freedom to organise and the right to collective bargaining, discrimination, discipline, working hours and pay.

Nordic Ecolabelling does not wish to set qualitative requirements and requirement levels for working conditions, but will base itself on documentation reflecting the manufacturer's certification under existing standards. Accordingly the working conditions requirement may be documented by means of one of the following alternatives:

- By means of SA8000 certification with the submission of a valid certificate,
or
- Code of Business Practice in accordance with ICTI's CARE Process (valid Seal of Compliance as published on the ICTI website).
or
- Other documentation that shows that the requirements are fulfilled.

So as not to exclude manufacturers in the process of obtaining SA8000 certification or Seal of Compliance a licence may in some cases be granted subject to certain conditions. In such cases, the last report issued by the certification body will be assessed on the basis of the amount of work that remains to be done before a licence can be granted and the areas that deviate from the standard. In addition, substantive action plans with specified time limits will be required to be submitted.

The licence may be revoked if the licenceholder no longer fulfils the requirements specified by SA8000, Seal of Compliance, or fail to follow the time limits specified in action plans, where applicable.

Subject to agreement Nordic Ecolabelling may approve the documentation of the requirement by means of the publication on for example the website of the production facility of the ways in which the requirements in the ILO Convention are observed and verified by a third party.