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CONSUMER POLICY AND CONSUMER HEALTH PROTECTION  
Directorate A – Consumer Policy  
**Unit A4 – Consumer safety and environment**

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**MANDATE  
TO THE EUROPEAN STANDARDS BODIES  
FOR A GUIDANCE DOCUMENT IN THE FIELD OF SAFETY OF  
CONSUMERS AND CHILDREN**

**CHILD SAFETY**

**INTRODUCTION**

This mandate is given under the framework standardisation mandate in the field of consumer safety.

A high level of priority has always been given to child safety in the setting up of the Internal Market. At European level, some Directives refer to child safety, like for instance the Toy Safety Directive.

At the end of November 1997 however, the European Parliament, in its resolution on the communication from the Commission on the Action Plan for the Single Market, highlighted that special attention should be given to a high degree of consumer protection, so that all children could benefit from the Single Market.

Child safety is a very wide scope for standardisation. It concerns children and their relationship to products, constructions and services. Children are, for the purpose of this mandate, defined as up to the age of 14 years old. This age limit is also used in the directive concerning safety of toys.

Children are exposed to products, constructions and services from the very first day of their lives. Many of these are standardised, and for some products legislation and standards are developed with consideration to children and their behaviour. But most products, constructions and services are not developed with the aim of preventing child accidents.

Three areas of application can be considered. These are:

Products, constructions and services aimed at children, but currently not mandated, e.g. playground equipment, sports equipment and installation and constructions in schools and child care institutions.

Products constructions and services not primarily aimed at children but which children come into contact with, e.g. household appliances, garden tools and equipment, escalators and lifts.

Products constructions and services of special concern, e.g. amusement parks, swimming pools etc.

Standards are already published in most of these areas. Safety specifications for these types of products generally take into consideration adult behaviour and thus, in some cases, are causing hazards for children. Reference is often made to adult supervision as means for preventing accidents. In many cases these references are relevant. Accident research, however, reveal a reality where children are injured in spite of supervision.

Excluded from this mandate are professional areas of work where persons under 14 years old do not have access or are not likely to have access. Also excluded are areas prohibited to the general public and areas prohibited to pedestrians in general, such as traffic areas.

The age range covered by this mandate constitutes a particular challenge since accident prevention for small children can be completely different from prevention work aimed at older children and teenagers. Thus, the age factor needs particular attention when drafting standards. Usually safety for small children also creates a safer environment for all parts of the population and in particular for the elderly and the disabled. There are, however, areas of conflict which have to be solved within particular products areas. An example of this is child resistant packaging, where in some cases the demand for child resistance can conflict the needs of elderly and disabled. Another example with special concern for children in the conflict between safety and speed within the transportation area, concerning both users of transportation and e.g pedestrians.

When incorporating child safety requirements into standards, this will cover all areas of technology and will have to cover all types of products, processes and services. To achieve absolute safety is impossible – some risk, foreseeable or non-foreseeable will always remain. Children's natural need to explore and develop will always result in a certain number of accidents and incidents. This is an important part of "growing up" and learning about our environment. The aim must be to reduce the risk and the severity of accidents to a tolerable level. To achieve this aim, consideration, where possible, has to be taken to factors as e.g

- the number of children coming into contact with the particular product, construction or service
- the age of the children coming into contact with the product, construction or service
- the accessibility
- the risk of injury and the severity of injury in case of accident
- the cost and benefit of prevention

In the last 15-20 years European standards applicable to a large amount of children's products has been developed. The standardisation work has promoted, targeted and collected the research in the area of child safety. The research and standards can be used as a basis for determining in which areas, and how, standards can be developed in general child safety work.

## **IDENTIFICATION OF HAZARDS AND RISKS.**

The cost of child accidents in Europe is very high, both economically and in human suffering. In Europe 15-20 % of all the child population (0-14 years old) will each year seek medical care due to accidents. To prevent the serious and the most common accidents will thus prove to be both cost effective and of ethical concern.

The areas of accidents are usually divided into sectors such as traffic, work, home, leisure, sports accidents etc.

The major area of accidents is always the home and leisure area<sup>1</sup>. When relating serious and fatal accidents, traffic is over represented when taking into consideration the amount of time (exposure time) which is spent in transportation. Child accidents show no different profile. It is in home environment most accidents occur. In the traffic area we will find an over-representation of serious and fatal accidents. In addition it is only natural to find an over-representation of child accidents in places mainly frequented by children such as child care institutions, schools and in activities where many children are participating such as e.g sports-related accidents.

A survey by the Dutch Consumer Safety Institute<sup>2</sup> has shown that home and leisure accidents are the major cause of death for children after illness. In this respect, children between 0 and 4 years of age are a particular vulnerable group. 65 % of deaths occurring due to external causes for children in this age group are related to accidents occurring in the home and during leisure activities.

Taking into account injuries not resulting in death, the high incidence of home and leisure accidents for children shown in the study is even more striking. Of all injuries occurring for children up to 4 years of age due to external causes which result in treatment by a general practitioner, 92 percent are caused by home and leisure accidents. For children between 5 and 14 years of age, the figure lies around 64 percent. In absolute figures, this means that in the Netherlands at least 123.000 children between 0 and 4 years of age and 282.000 children between 5 and 14 years of age are treated annually by a general practitioner for injuries caused by home and leisure accidents.

The accident data used below mainly originate from the EHLASS system.

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<sup>1</sup> EHLASS, European Home Accident Surveillance System.

<sup>2</sup> Kerncijfers. Letsel door ongevallen en geweld. Een overzicht van sterfte en letsel door verkeers-, bedrijfs- en privé-ongevallen, sportblessures en geweld. Stichting Consument en Veiligheid, March 1997

The number of children, under 14 years of age, involved in traffic accidents<sup>3</sup> are substantial when considering the amount of time used in transportation or on the street.

Traffic accidents (including street accidents) is estimated to, in Denmark, 13 %, in the Netherlands 19 % and in Greece 17 % of all child accidents.

Traffic accidents differ from other accidents in that they are serious and, statistically, more often fatal. Children are, for many reasons, much more vulnerable both as passengers in a vehicle and as pedestrians and/or cyclists. They have difficulty in anticipating traffic situations, they are shorter (they cannot see all situations), they react slower, they are physically more vulnerable.

However a large amount of resources has been allocated to traffic safety measures through many years. These measures have probably reduced the amount of accidents and human suffering substantially over the years. Still children are injured, both in vehicles and as pedestrians or cyclists. In other words: Measures are still necessary.

Sports accidents have in the last 10 years been an increasing cause for concern. Our general understanding of sports activities among children is that it is healthy. It may be difficult to accept that this area is one with many accidents, in particular among older children and teenagers.

Sports accidents are estimated to, in Denmark 15 %, the Netherlands 18 % and Greece 6% of all child accidents.

Child care institutions and schools are not exempt from accidents. The same pattern of accidents can be found here as in the home and leisure area.

Accidents in child care institutions and schools pr. 1000 of child population is estimated to, in Denmark 15%, in the Netherlands 6% and in Greece 18 %.

The difference is however, that in these institutions the focus on liability has to be added. Guardians entrust their children into the hands of someone else, which will require additional concern for, among other things, safety from these institutions. Safety standards applicable for these institutions should therefore incorporate requirements covering the whole environment, not only specific products such as playground equipment installed in the steelyard. Experience has to be drawn from all fields mentioned above to ensure minimum risk of injury.

Shopping centres, holiday sites and amusement parks<sup>4</sup> are often not considered as environments for children. But within our developed society they have become areas where children are very frequent visitors.

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<sup>3</sup> Draft pamphlet on Child Accidents, Norwegian Safety Forum, Johan Lund, 1998.

<sup>4</sup> Ulykkes-og skadeforebyggende arbeid i en fritidspark (Accident and injury prevention in an amusement park) William R. Glad, 1991.

The study from an amusement park in Norway also studied accidents in three other amusement parks, one in Sweden and two in Denmark. The study confirms that children are more frequently injured than adults. Injuries depend on what type of equipment the amusement park supplies but falls (65%) are the most common accidents. In the study children fall from carousels, cars, BMX bikes, trampolines etc.

Play facilities are almost always also a part of shopping centres and holiday sites. This makes them attractive to both children and guardians. EHLASS accident data shows that ca 3-4% of the total number of accidents occur in shopping centres. The data also shows that, among children, it is the age group between 1 - 4 years old which are most frequently injured. Two examples of problem areas where accidents can occur: 1. Not sufficient surfacing in indoor play facilities and 2. children's seats in shopping trolleys.

## **PRINCIPLES OF REQUIREMENTS FOR THE PURPOSE OF THIS MANDATE**

**This mandate is given under the framework standardisation mandate in the field of consumer safety which deals with products and services understood as a product used in the provision of a service**

### Definitions of products and services accessible to children

Those products and services which are easily and generally accessible to children up to 14 years of age.

### Principles of child safety in products and services.

In accordance with the general requirements of the Directive (92/55/EEC) on General Product Safety, products (and services) shall only be available for sale when they do not jeopardise the safety and/or health of the children, their carers or any other person.

The degree of safety should be defined according to the criteria of usage in conformity with product instruction, but also taking into account the use of such products and the risks associated to them, having regard to the normal behaviour and physical characteristics of children.

When considering the safety issues to be addressed, consideration should be given to the child's desire to learn, explore and experiment and also to the fact that young children cannot understand instructions and do not behave consistently.

### Hazards and objectives of protection

Children and third parties should be protected against hazards:

- which are linked to the design, construction or composition of products and services. Such hazards should be minimised at the design and manufacturing stage through appropriate technical specifications;

- of a residual nature which are inherent in the use of the product and service and cannot be eliminated by modifying the product's construction and composition without altering its function or depriving it of its essential properties.

#### Foreseeable use

The safety of a product and service is given in respect to the criteria of foreseeable use and misuse and the normal behaviour of children. It takes into account:

the age, physical development and ability of the child for whom the product is accessible.

relevant risk factors presented by the child's environment, the activity of the carers and other children

#### Risk factors

The risk factors are assessed in accordance with anthropometric and bio-mechanic data, possibilities and limitations of different age groups and most recent scientific findings and also as a function of situations which may actually occur in everyday life.

Tests designed to determine the technical safety specifications to be applied to the product and service should represent these risk factors and situations also taking into account the conditions of use applicable.

### **REQUIREMENTS APPLICABLE TO CHILD SAFETY**

#### Introduction

The Toy Safety Directive includes annexes determining requirements for toys. This list of requirements can form a basis for determining which general and special requirements should be considered when developing new standards and including requirements in existing standards. Relevant standards can be CEN/TC 252 WG 6 doc N275, Draft CEN report "Child use and care articles - General and Common safety guidelines" and Draft ISO/IEC Guide 50 "Safety aspects - Specific guidelines to take child safety into account in standards" which includes almost complete lists of hazards and requirements which are relevant for this mandate. There are also other relevant standards such as: European, American, Canadian, Japanese, Australian and ISO standards, which can be used when determining child safety requirements.

#### List of requirements applicable to child safety which should be addressed in standards.

\* *Physical and mechanical properties*

Relevant hazards include, but are not limited to: Hazardous heights (surfacing), Stability, Asphyxiation (choking, ingestion, strangulation and suffocation), Entrapment and crushing (spacing of bars, moving parts, protruding parts and

snagging), Sharp edges and points and general requirements to materials (hygiene, moulding, hardware, structural integrity etc.).

\* *Chemical properties*

Products should be manufactured so that they do not present health risks arising from the chemical properties of the materials of which they are made. This also includes the substances ingredients and preparations including additives and impurities of substances used in treating and coating these materials. Risks of acute or chronic poisoning, corrosive or irritant effect, carcinogenic effect, mutagenic and allergenic effects arising from ingestion, skin contact, licking, sucking, inhalation and contact with the mucous membranes should be avoided.

\* *Electrical properties*

When products are powered by electricity of stored energy the current used and the design of the electrical appliances and battery compartments shall not create any risk to the child.

\* *Radioactivity*

Child care articles should not contain radioactive substances or elements covered by Council Directive 80/836/Euratom of 15 July 1980, amending the Directives laying down the basic safety standards for the health protection of the general public and workers against the dangers of ionizing radiation, including requirements for laser.

\* *Fire and thermal hazards*

Products and services should not constitute a dangerous flammable element in the child's environment and there should be no risk of injury caused by contact with hot or cold surfaces or hot liquids. Careful assessment of the overall risks should be made when considering using materials which can release toxic fumes during combustion.

\* *Safety information*

Safety information should be provided to prevent accidents that cannot be avoided by design. The information should identify potential hazards and/or consequences and indicate the precautions to be taken.

If applicable, information and warnings, incorporating suitable age should be included.

Safety information comprises purchase information, instructions for use, markings and warnings.

Safety information should be designed to draw the carers' and/or the child's attention to the hazards likely to be encountered when using the product and the precautions to be taken in order to avoid accidents.

Consideration should also be given to the need for permanent labelling.

## **NATIONAL AND EUROPEAN REGULATIONS**

### European Directives :

Directive 92/59/EEC of 29 June 1992 on General Product Safety

Directive 88/378/EEC of 3 May 1988 on Safety of Toys

Directive 89/686/EEC of 21 December 1989 on Personal Protective Equipment

Directive 89/392/EEC of 14 June 1989 on Safety of Machinery

Directive 89/106/EEC of 21 December 1988 on Construction Products

Directive 73/23/EEC of 19 February 1973 on Low Voltage Equipment

Directive 89/336/EEC of 3 May 1989 on Electromagnetic Compatibility

Directive 90/396/EEC of 29 June 1990 on Gas Appliances

Directive 87/357/EEC of 25th June 1987 on Products which, appearing to be other than they are, endanger the Health and Safety of Consumers.

Directive 90/35/EEC of 19th December 1989- defining in accordance with Article 6 of Directive 88/379/EEC the Categories of preparations the Packaging of which must be fitted with Child Resistant Fastenings and /or carry a tactile Warning of Danger.

Commission Directive 91/442/EE of 23rd July 1991 on Dangerous Preparations the Packaging of which must be fitted with Child Resistant Fastenings.

Commission Directive 93/11/EEC of 15th March 1993- concerning the Release of the N-nitrosamines and N-nitrosatable substances from Elastomer or Rubber Teats and Soothers.

Council Directive 80/836/Euratom of 15 July 1980 amending the Directives laying down the basic safety standards for the health protection of the general public and workers against the dangers of ionizing radiation.

#### Other relevant legislation and documents

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Council Decision 93/580/EEC- 25th October 1993- concerning the Institution of a Community system for the exchange of Information in respect of certain Products which may jeopardise Consumers' Health or Safety.

ECAS European Citizen Action Service. Consumers with special needs. Brussels 1994.

United Nations Convention on the rights of the child

### **EXISTING STANDARDS AND ONGOING STANDARDIZATION WORK**

There is a whole range of standards and ongoing standardisation work going on which is directly applicable to child safety. For various reasons most of this work is not

incorporating child safety issues. There are, however, some standards and ongoing standardisation work which must be mentioned, as it can be used for determining where child safety issues are relevant and what requirements may be determined.

In 1990, a CEN Technical Committee, CEN/TC 252, Child use and care articles, was set up to look at the safety of other child care products (children 0 - 4 years old). One of the working groups, working group (WG 6) was formed to address horizontal issues so that consistent standards were produced where similar hazards were addressed in a similar way wherever possible. The goal of WG 6 is to issue guidelines which cover hazards common to child care articles and harmonise the approach to risk assessment and prevention. These guidelines will recommend preventative safety measures to avoid the risk of injury caused by child care articles and their packaging.

In 1988 the European directive on toys was published. Along with this directive the standard EN 71-1:19 88 was published. Since then the toy standard has been under revision and the new edition of the standard will probably be published in 1998, prEN 71-1: August 1997 (final draft), Safety of Toys. During the revision period a large number of safety features have been addressed concerning children up to the age of 14.

Standardisation of playground equipment is now at its final stage, pr EN 1176 parts 1-6 1996, Playground equipment. This standard, consisting of many parts, incorporates requirements and test methods for equipment for children up to the age of 14.

During the last ten years harmonisation of requirements concerning safety features and children has come far. A lot of research in a number of areas have been collected and analysed. One may at this stage say that, with the exemption of chemical hazards, there is today enough knowledge on how to deal with child safety issues in standards.

## **THE NEED FOR STANDARDIZATION**

Children form a vulnerable group in society. Standards are important as guidance for industry of the specific safety aspects that will have to be taken into account in relation to products and constructions in children's surroundings. As mentioned above a major part of current standards and ongoing standardisation work is not concerned with child safety issues.

The standards developed on a European level are also of concern for the authorities responsible for safety. As the Directive (92/59/EEC) on General Product Safety provides that the conformity of a product to the general safety requirements is to be assessed, having regard in the first instance to voluntary national standards transposing to a European standard, the standards will be of importance also for the application of this Directive.

A mandate would emphasise the importance of standardisation being carried out for relevant types of products and services. A mandate would help focus on child safety as an issue when standardising for the general public. In addition, it will safeguard that all relevant safety aspects of importance for product safety are taken care of in the standards, also by the authorities responsible

As mentioned earlier a lot of research and standardisation has been developed during the last ten years. As a result of this work there is now a real possibility for developing horizontal requirements and test methods. Horizontal requirements and test methods will reduce the cost and rationalise standardisation substantially when incorporating child safety into areas where it is not addressed at present.

## **MANDATE**

This mandate is given under the framework standardisation mandate in the field of consumer safety.

The European bodies responsible for standardisation, being CEN, CENELEC and ETSI are requested to accept a mandate to :

### **AS A FIRST STEP.**

1 - Draft a guidance document which explains how to address the needs of children in product and service standards and give references to specific safety requirements concerning child safety. The document shall determine the criteria for assessing risks and hazards involving child safety issues. International, European and national documents as existing standards, guides and catalogues shall be taken into account, (special attention should be paid to the work already done by CEN/TC 252 and the ISO/IEC guide 50). Documents from other sources as relevant accident research and relevant literature concerning child safety such as child ergonomics, anthropometry, child development etc, shall also be considered.

2 – Set up a mechanism to make sure that the guidance document is actually used and continuously improved; distribute the document to all relevant technical bodies; promote ways of insuring that the information is accessible at the right time; request committees to report on use and experiences at regular intervals; evaluate the use and report to the Commission.

### **AS A SECOND STEP**

Possibly review specific existing standards in view of possible amendment in the context of the guidance document.

## **EXECUTION OF THE MANDATE**

CEN, CENELEC and ETSI shall present to the Commission within 3 months of the date of acceptance of this mandate, a report setting out the arrangements they have made for execution of this mandate.

The report shall include target dates for the presentation of the guidance document and for the proposition of a list of standards, which should be revised as a second step after publication of the guidance document.

Relevant interested parties, such as representatives of consumers and child safety experts, shall have the possibility to participate to the process.

Following the execution of this mandate and depending on its result, a possible further mandate to the production of revised standards can be envisaged.

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