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DIRECTORATE-GENERAL III

INDUSTRY

Legislation and standardization; telematics networks

Standardisation, including industrial aspects of electronic trading

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M259

**MANDATE FOR STANDARDISATION ADDRESSED TO CEN
IN THE FIELD OF CONSUMER SAFETY FOR OIL-LAMPS**

1. Introduction

An oil-lamp is a container holding mineral oil in which a wick is dipped. A flame is produced by burning the oil through the wick. Oil-lamps may pose a danger to small children. The danger is attributed partly to the oil, partly to the lamp.

With regard to the oils, these pose a danger because small children, attracted by their colour and perfume, want to drink them. The particular oils used in lamps, if consumed, can cause severe lung damage and even death. In practice only two types of oil give acceptable results in these lamps, kerosene and paraffines. These substances, with low viscosity and low surface tension, are classified as dangerous because they present an aspiration hazard. Because of the lack of substitutes and the fact that these oils are used by consumers for many other purposes e.g. heating and barbecue lighters, they can not be generally banned. The best that can be done with the oils is to control their use. The Commission will shortly adopt a Directive to ban the use of the coloured and perfumed oils, to supplement existing measures like labelling and child resistant closures. This will take the form of an adaptation of annex 1 to Directive 76/769/EEC. An information campaign is also planned to alert parents to the dangers of drinking the oils. All of these measures will help in the short time. However they don't address the problems presented by the poor designs of the lamps.

With regard to the design of the lamps, these often don't fulfil basic safety requirements. The more recent designs often consist only of a glass holder, with a drop-in wick. The wick and oil are not protected e.g. by a glass bell and can be easily accessed. Small children drink the oil straight out of unprotected lamps or suck it through the wicks. To solve the problem in the long term a standard within the framework mandate for standardization in the field of consumer safety (M201) for the design of safe lamps needs to be developed

2. Identification of the risk

Enquiries have shown that accidents usually occur in the home. Small children, aged between 1 and 3, drink the oil straight from the lamp with severe consequences for their health. The very small amount of lamp oil (probably less than 80-150 mg/kg body weight) is enough to cause serious complications to the lung. Specific changes in the lung can usually be seen within 12 hours of the accident and these remain for several weeks or even years.

It is not uncommon to have cases of chemical pneumonia which, if they do not heal properly, may considerably reduce lung function and volume. Damage can also be detected in the deeper-lying bronchial system 8 to 14 years after the accident in a large percentage of cases (82%).

In the most serious cases, patients very quickly lose consciousness and die in spite of efforts to resuscitate them. Experts agree that the result of such poisoning very much depends on the individual, there being no particular treatment which guarantees success.

Poisoning have been documented in most Member States and in several third countries e.g. USA and South Africa. The incidence of poisonings in many Member States is in the region of 10 cases/year/million of inhabitants which would imply several thousand poisonings per year for EU overall. Deaths have also been reported e.g. in Germany. Furthermore the incidence of poisonings is increasing, especially since 1992.

3. National legislation

Norway has restrictions on the use of coloured lamp oils and on open lamps in force since the late eighties and results have been good in preventing accidents. Norway prohibits the marketing of oil-lamps with a loose wick, of coloured lamp oils and of the colour itself.

In addition to this single case of legislation there is a variety of voluntary initiatives in the different Member States to ensure the safety of oil and lamps, e.g. voluntary labelling and advance introduction of child resisting fastening.

4. National statistics.

As there are no consolidated statistics on accidents, figures will be presented on a national basis.

①. Austria

Between May 1994 and February 1997 there were 150-200 calls in Austria asking for information on this subject. There were 25 poisonings treated in hospital, 18 requiring long term treatment. The accidents usually occurred at home and involved children aged 1 to 6.

②. Belgium

130 cases were reported between 1995-96 to the Poison Centre. The majority of the calls were concerning children (111), many of less than two years (48), and many between 2-4 (44). 25% were sent to hospital.

③. Germany

The Federal Institute for Health Protection of Consumers and veterinary Medicine have reported 250-300 cases of chemical pneumonia between 1993-1995. On the evolution of cases since 1990, they have recorded an increase in calls for information following cases of poisoning, the figures in fact having doubled between 1990 and 1995 (from 429 to 886 per year). Lamp oil is the most frequent noxious agent causing problems to children; it is followed by drain cleaners, paints, insecticides or cleaning products.

A more detailed study was carried out in 1996. The federal Institute recorded 21 cases of children less than 2 years who were taken to hospital because of lamp oil intoxication.

④. The Netherlands

Due to the increasing number of poisonings by lamp oil a study was carried out in 1996 by the National Poisons Control Centre (NVIC) of the National Institute of Public Health and The Environment (RIVM) in close co-operation with the General Institute for Health Protection (HIGB). In the 12 months questionnaires were circulated for all cases of possible poisoning by lamp oil in which the NVIC have been consulted (165 cases). Data was returned for 109 cases.

The majority (82%) of the patients was aged 1-2 years. The ingested dose was reported in 79 cases and varied from 1-150 ml; in 84% of these cases the volume was small (1-10 ml). In 68% of the cases the children drank from the lamp and in 23% ingestion from the bottle was reported.

Symptoms were reported for 77% of patients. Effects most frequently observed were coughing (52 cases), vomiting (20 cases) and lethargy or drowsiness (18 cases). Chemical pneumonia was reported in 9 cases. No fatalities were reported in the investigation period. In 39% of the cases patients were sent to hospital and in 55% of these patients remained under observation, usually for one day.

⑤. Sweden

At the Swedish Poison information Centre petroleum distillates are ranked as third in the league of chemical agents most commonly causing incidents to children under ten. Some 500 inquiries per year are registered of children drinking petroleum distillates of the type used in oil-lamps. A majority of the cases involve barbecue starters. Lamp oils are involved in around 150 cases every year.

5. Requirements of a lamp standard

The standard concern oil-lamps intended for decorative use in homes. The basic objective of a standard would be to promote a design for lamps which would *restrict* access to the contained oil. Examples of measures which have proven successful are screw fittings on filling points, firmly secured wicks, glass flute or bell surrounding the wick end etc.

6. Summary

Taking into account:

- the number of accidents due to the ingestion of lamp oil and the serious consequences to children,
- the origin of the accidents, linked on the one hand to the colour and perfume used in lamp oils, and linked on the other hand, to lamp designs that do not fulfil safety requirements,

7. Execution of the mandate.

1. CEN shall inform the Commission of the arrangements to be adopted for the execution of the work within three months of acceptance of this mandate.
2. CEN shall present a list of target dates for the presentation and adoption of the standards listed in Annex A, to the Commission, within six months of acceptance of this mandate. CEN shall present the draft standards listed therein by the target dates specified. Where, in elaborating the work, it becomes necessary to amend the programme, CEN shall inform the Commission of the changes, with target dates in the case of additions to the programme; the programme as amended will in principle then be covered by this mandate. The Commission will in its turn inform the Committee on Standards and Technical Regulations.
3. The European Standards (EN) shall be adopted by the target dates specified. At these dates, they shall be available in German, English and French.
4. The European standards adopted shall be transposed into national standards and differing national standards shall be withdrawn from the catalogues of the national standards organisations in the Member States within six months of their adoption.
5. Acceptance by CEN of this mandate starts the standstill period referred to in Article 7 of Council Directive 83/189/EEC¹ as last amended by Directive 94/10/EC of the Council and Parliament.

¹ OJ N° L 109 of 26 04 1983