



1st April 2008

Ministry of the Environment

Stakeholder consultation on RoHS exemptions

Review of existing exemptions

Sweden is of the opinion that justification for the following exemptions needs to be further investigated in accordance with Article 5 (1) (b) in the RoHS Directive. Below we have listed information which indicates that there might be alternative solutions available for the exempted applications.

Exemption 1-4

Several preparatory studies have been carried out in the framework of the EuP Directive (Directive 2005/32/EC) which provides relevant information on mercury in lighting equipment¹. According to these preparatory studies there are technical possibilities to lower the present limit values in the exemptions for the use of mercury in compact fluorescent lamps and straight fluorescent lamps. According to the EuP preparatory study on TV (final report task 6) there is a mercury free backlight technology available on the market (FFL). The development of alternative mercury free technologies for backlight in flat TVs and other displays, such as LED and OLED, are according to this study very promising for the near future.

Exemption 6 (9b)

According to a Swedish company there are lead-free alternatives to leaded copper alloys available on the market. The company states that the alternative copper alloyed material is both easy to machine and does not carry the brittleness normally associated with Bismuth or Bismut-based bronze substitutes. Through the use of the alternative alloys it is possible to replace lead in most copper alloys, not only in bronze alloys.

Exemption 8

¹ EuP preparatory studies for Consumer electronics e.g. TV-sets, Flat screens, Imaging equipment, Office lighting, Street lighting, Domestic lighting

The Scandinavian edition of the newspaper EE Times Europe, *Elektronik i Norden*, presents Scandinavian electronics news to the world in English and global electronics news to readers of Swedish. In number 9 2005, page 13, there was an article regarding the exemption on cadmium in RoHS. According to this article a company has marketed electrical contacts, switches and relays without cadmium since April 2005.

Exemption 9a

The justification for the exemption for decaBDE in polymeric applications is currently a subject in the European court of justice. A court ruling is expected in the beginning of April.

In 2005 the Swedish Chemical Agency carried out a survey and technical assessment of alternatives to Decabromodiphenyl ether (decaBDE) in plastics.²

Exemption 25

According to the EuP preparatory study on TV (final report task 6) there is lead free PDP on the market³.

Exemption 29

The exemption for lead in crystal glass has recently been investigated (final report July 2006) and the Öko-Institute made a recommendation to refuse the request for exemption. A general exemption was nevertheless granted eventually. We believe that the current exemption is too general and that it is not in all parts justified by article 5 (1) (b). To our knowledge it is technically possible to manufacture uncoloured crystal with the same quality without using lead oxide. A Swedish company has manufactured such uncoloured crystal for many years.

Please contact Göran Gabling (goran.gabling@kemi.se) at the Swedish Chemicals Agency for more information.

² Follow this link to read the report: [Kemi Report 1/05](#)

³ In November 2006 the Panasonic Corporation of North America announced that they achieved a proprietary lead-free plasma display panel. Lead in PDP is currently exempted from the RoHS Directive 2002/95/EC (see Task 1). Lead-oxide glass is used in the dielectric layer, electrodes, glass sealant and other structural elements, primarily because of its capability to stabilize production yield and quality. According to the press release Panasonic has eliminated all of the roughly 70 grams of lead used in a 37" PDP.