

# EU Environmental Requirements Regarding Hazardous Substances in Electronics

Swedish Chemicals Agency

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# Essential Legislation

- Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS Directive)
- Framework directive for eco-design requirements for energy using products (EuP)
- REACH regulation

# RoHS

## Purpose

Reduce risks to human health and environment through substitution of mercury, lead, cadmium, hexavalent chromium, PBB and PBDE in electronics with less hazardous substances or by alternative techniques.

Increased possibilities and more profitable reuse of materials in waste from electronics.

# RoHS Scope

## **Products which:**

- Falls under Category 1-7 and 10 in Annex 1a of WEEE-Directive

## **and which:**

- Generates,
- Transfers and measures, or
- Uses electric currents and electromagnetic fields

# RoHS Scope

## Categories

- 1. Large household appliances
- 2. Small household appliances
- 3. IT and telecommunications equipment
- 4. Consumer equipment
- 5. Lighting equipment

# RoHS Scope

## Categories

- 6. Electrical and electronic tools (with the exception of large-scale stationary industrial tools)
- 7. Toys, leisure and sports equipment
- 8. Medical devices (with the exception of all implanted and infected products)
- 9. Monitoring and control instruments
- 10. Automatic dispensers
  
- Including also electric light bulbs, and luminaries in households.

# RoHS Exemptions

Currently 38 exemptions for certain uses of mercury, lead, cadmium, and hexavalent chromium.

Major exemptions for mercury in lamps and lead in solder in IT and telecom.

List of these exemptions

# RoHS

## Exemptions Review

- According to Article 5.1c, the exemptions shall be revised every 4th year.
- Review of the exemptions will take place during 2009/2010.
- Aims at removing exemptions no longer motivated according to Article 5.1b in RoHS.
- Decision by the Commission after **vote by MS into the regulatory committee TAC**

# RoHS

## Review of the Directive

Proposal for a revision of RoHS published 3 December 2008, including:

- Exhaustive list of products within scope, Annex II
- Medical devices (Cat. 8) and monitoring and control instruments (Cat. 9) in scope
  - Cat. 8 from 1/1/2014 (not implantable)
  - Cat. 8 in vitro diagnostic MD from 1/1/2016
  - Cat. 9 from 1/1/2014
  - Cat. 9 industrial use from 1/1/2017
- Spare parts for the repair of products placed on the market before these dates

# RoHS

## Review of the Directive

- Applications exempted from ban as regards to Cat. 8 and 9 (Annex VI)
- Harmonized definition of economic operators through the framework for marketing of products
- "Repair as produced" – products benefitted from exemption may be repaired with non-compliant parts
- Exemptions will be valid for 4 years maximum
  - In order to stimulate substitution
  - Shift the burden of proof to the applicant

# RoHS

## Review of the Directive

- Extended possibilities for exemption - socioeconomic aspects, and availability and reliability of substitutes
- Special account of the situation for SMEs
- A mechanism for introducing new substance bans in line with REACH methodology
- Annex III lists prioritized substances:
  - Hexabromocyclododecane (HBCDD)
  - Bis (2-ethylhexyl) phthalate (DEHP)
  - Butyl benzyl phthalate (BBP)
  - Dibutylphthalate (DBP)

# RoHS

## Review of the Directive

- The ban on dekaBDE remains (**reinjusted** 1/7/2008 by the European Court of Justice)
- Introduce product conformity assessment requirements and market surveillance mechanisms in line with the "marketing of product package"

# RoHS

## Review of the Directive

- Decision on a new and revised RoHS Directive will be taken by the European parliament and the Council in the beginning of 2010.
- The negotiations will start during Spring 2009 and continue during the Swedish presidency in the Council in Fall 2009.
- Updated information will be uploaded on [www.kemi.se](http://www.kemi.se)

# Framework Directive for Eco-design Requirements for Energy-using Products (EuP)

- Framework directive setting up eco-design requirement for energy-using products from a life cycle perspective
- Implementing measures for 18 prioritized product categories – overlapping RoHS
- Energy efficiency is a prioritized aspect

# EuP

- Implementing measure for household lighting was voted through in December 2008
    - Stepwise phase out of incandescent lamps
      - Starting from September 2009
    - Information about mercury content in CFLs (x.x mg) through markings on package
    - Referral on package for more information on the Internet about how to behave if a CFL is broken and mercury vapor is released into the indoor air
    - Information on the Internet about how to treat the CFL as waste
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# Swedish Chemicals Agency

## Recommendation on broken CFL – minimize exposure to mercury

### Cold lamp

- Collect the remains of the lamp, i.e., with a piece of cardboard and put them in a jar with lid.
- Wipe the floor with a damp cloth and put it also in the jar.
- Bring the jar to a collection facility for hazardous waste.
  
- Do not use vacuum cleaner as this could increase the exposure to mercury in the indoor air.

### Warm lamp

- Open windows – ventilate the room.
- Close the doors and leave the room for 20-30 minutes.
  
- And then do as recommended if a cold lamp was broken.