

**STAKEHOLDER CONSULTATION ON**

**ADAPTATION TO SCIENTIFIC AND TECHNICAL PROGRESS**  
**UNDER DIRECTIVE 2002/95/EC**

**OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL ON THE**  
**RESTRICTION OF THE USE OF CERTAIN HAZARDOUS**  
**SUBSTANCES IN ELECTRICAL AND ELECTRONIC EQUIPMENT**

**FOR THE PURPOSE OF A POSSIBLE AMENDMENT OF THE ANNEX**

**1. INTRODUCTION**

Article 4(1) of Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment<sup>1</sup> provides ‘that from 1 July 2006, new electrical and electronic equipment put on the market does not contain lead, mercury, cadmium, hexavalent chromium, PBB or PBDE.’

The annex to the Directive lists a limited number of applications of lead, mercury, cadmium and hexavalent chromium, which are exempted from the requirements of Article 4(1).

According to Article 5 (2) of Directive 2002/95/EC the Commission is required to consult the relevant stakeholders before amending the annex. The results of this consultation will be forwarded to the Technical Adaptation Committee of the Directive 2002/95/EC and the Commission services will provide an account of the information received.

Although the Commission will analyse the results of this stakeholder consultation carefully, please note that as with all stakeholder consultations, this action is only one part of the decision making process.

**Neither the fact that a stakeholder consultation is being launched, nor the results of this stakeholder consultation should be interpreted as a political or legal signal that the Commission intends to take a given action.**

**2. PROPOSAL FOR ADDITIONAL EXEMPTIONS**

Article 5(1)(b) of Directive 2002/95/EC provides that materials and components can be exempted from the substance restrictions contained in Article 4(1) if their elimination or substitution via design changes or materials and components which do not require any of the materials or substances referred to therein is technically or scientifically impracticable, or where the negative environmental, health and/or consumer safety impacts caused by substitution outweigh the environmental, health and/or consumer safety benefits thereof.

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<sup>1</sup> OJ L 37, 13.2.2003, p. 19

On the basis of this provision the Commission has received from industry additional requests for applications to be exempted from the requirements of the directive.

The titles for the exemptions as submitted by industry and the request for exemption with the substantiated evidence (available by clicking on the title) are:

1. Lead in tin whisker resistant coatings for fine pitch applications,
2. Lead bound in glass, crystal glass, lead crystal or full lead crystal in general,
3. Chromium (also in oxidation state (VI)) and Cadmium as colouring batch addition each form up to a content of 2 % in glass, crystal glass, lead crystal or full lead crystal used as decorative and / or functional part of electric or electronic equipment,
4. Solders containing lead and/or cadmium for specific applications,
5. Hexavalent chromium (CRVI) passivation coatings,
6. Lead in lead oxide glass plasma display panels,
7. Lead in connectors, flexible printed circuits, flexible flat cables,
8. Lead oxide in lead glass, bonding materials of magnetic heads and magnetic heads,
9. Cadmium as doping material in avalanche photodiodes (APDs) for the optical fiber communication systems,
10. Lead in optical isolators,
11. Lead in sheath heater of Microwaves,
12. Cadmium pigments except for applications banned under Directive 91/338/EEC amending Directive 76/769/EEC relating to the restriction on the marketing and use of certain substances,
13. High Intensity Discharge (HID) lamps for professional U.V. applications, containing lead halide as radiant agent,
14. Discharge lamps for special purposes containing lead as activator in the fluorescent powder (1% lead by weight or less),
15. Discharge lamps containing lead in the form of an amalgam,
16. Mercury free flat panel lamp,

17. Special purposes Black Light Blue (BLB) lamps, containing lead in the glass envelope,
18. Low melting point alloys containing lead,
19. Galvanised steel containing up to 0.35% lead by weight and aluminium with an unintended lead content up to 0.4% lead by weight in electrical and electronic equipment,
20. Lead in solder and hexavalent chromium in surface treatment, in parts recovered from production printers and copying equipment, sold, rented or leased or otherwise returned from professional users other than private households, originally put on the market before 1 July 2006, and reused for the same purpose within the original manufacturer's closed loop system until 1 July 2011. In this context a closed loop system means a system whereby the equipment remains the property of the manufacturer or is subject to other contractual arrangements and is returned to the manufacturer either when the contract expires or at end of life,
21. Cadmium sulphide photocells,
22. Applications of lead, mercury, cadmium, hexavalent chromium, PBBs and PBDEs in electrical and electronic equipment in the aeronautic and aerospace sectors that requires high safety standards.

#### **4. CONSULTATION OF INTERESTED PARTIES**

In preparation of the decision for the consideration of the items listed above based on Article 5(1) (b), the Commission services would like to consult interested parties.

In particular, stakeholders are requested to provide, for each entry, information on the current existence of feasible substitutes in an industrial and/or commercial scale, and the costs and benefits and advantages and disadvantages of such a substitute. Stakeholders are requested to provide for a precise wording for each exemption.

For each item, any feasible substitutes should be identified and any restrictions that apply to this substitute. Stakeholders are requested to support, as far as possible, their contribution with technical and scientific evidence.

- 1. Lead in tin whisker resistant coatings for fine pitch applications**
- Do feasible substitutes currently exist in an industrial and/or commercial scale?
  - Do any restrictions apply to such substitutes?
  - What are the costs and benefits and advantages and disadvantages of such substitutes?
  - Please indicate a precise wording for this exemption.

- 2. Lead bound in glass, crystal glass, lead crystal or full lead crystal in general**
- Do feasible substitutes currently exist in an industrial and/or commercial scale?
  - Do any restrictions apply to such substitutes?
  - What are the costs and benefits and advantages and disadvantages of such substitutes?
  - Please indicate a precise wording for this exemption.

- 3. Chromium (also in oxidation state (VI)) and Cadmium as colouring batch addition each form up to a content of 2 % in glass, crystal glass, lead crystal or full lead crystal used as decorative and / or functional part of electric or electronic equipment**
- Do feasible substitutes currently exist in an industrial and/or commercial scale?
  - Do any restrictions apply to such substitutes?
  - What are the costs and benefits and advantages and disadvantages of such substitutes?
  - Please indicate a precise wording for this exemption.

- 4. Solders containing lead and/or cadmium for specific applications**
- Do feasible substitutes currently exist in an industrial and/or commercial scale?
  - Do any restrictions apply to such substitutes?
  - What are the costs and benefits and advantages and disadvantages of such substitutes?
  - Please indicate a precise wording for this exemption.

- 5. Hexavalent chromium (CRVI) passivation coatings**
- Do feasible substitutes currently exist in an industrial and/or commercial scale?
  - Do any restrictions apply to such substitutes?
  - What are the costs and benefits and advantages and disadvantages of such substitutes?
  - Please indicate a precise wording for this exemption.

- 6. Lead in lead oxide glass plasma display panels**
- Do feasible substitutes currently exist in an industrial and/or commercial scale?
  - Do any restrictions apply to such substitutes?
  - What are the costs and benefits and advantages and disadvantages of such substitutes?
  - Please indicate a precise wording for this exemption.

- 7. Lead in connectors, flexible printed circuits, flexible flat cables**
- Do feasible substitutes currently exist in an industrial and/or commercial scale?
  - Do any restrictions apply to such substitutes?
  - What are the costs and benefits and advantages and disadvantages of such substitutes?
  - Please indicate a precise wording for this exemption.

- 8. Lead oxide in lead glass, bonding materials of magnetic heads and magnetic heads**
- Do feasible substitutes currently exist in an industrial and/or commercial scale?
  - Do any restrictions apply to such substitutes?
  - What are the costs and benefits and advantages and disadvantages of such substitutes?
  - Please indicate a precise wording for this exemption.

- 9. Cadmium as doping material in avalanche photodiodes (APDs) for the optical fiber communication systems**
- Do feasible substitutes currently exist in an industrial and/or commercial scale?
  - Do any restrictions apply to such substitutes?
  - What are the costs and benefits and advantages and disadvantages of such substitutes?
  - Please indicate a precise wording for this exemption.

- 10. Lead in optical isolators**
- Do feasible substitutes currently exist in an industrial and/or commercial scale?
  - Do any restrictions apply to such substitutes?
  - What are the costs and benefits and advantages and disadvantages of such substitutes?
  - Please indicate a precise wording for this exemption.

- 11. Lead in sheath heater of Microwaves**
- Do feasible substitutes currently exist in an industrial and/or commercial scale?
  - Do any restrictions apply to such substitutes?
  - What are the costs and benefits and advantages and disadvantages of such substitutes?
  - Please indicate a precise wording for this exemption.

**12. Cadmium pigments except for applications banned under Directive 91/338/EEC amending Directive 76/769/EEC relating to the restriction on the marketing and use of certain substances**

- Do feasible substitutes currently exist in an industrial and/or commercial scale?
- Do any restrictions apply to such substitutes?
- What are the costs and benefits and advantages and disadvantages of such substitutes?
- Please indicate a precise wording for this exemption.

**13. High Intensity Discharge (HID) lamps for professional U.V. applications, containing lead halide as radiant agent**

- Do feasible substitutes currently exist in an industrial and/or commercial scale?
- Do any restrictions apply to such substitutes?
- What are the costs and benefits and advantages and disadvantages of such substitutes?
- Please indicate a precise wording for this exemption.

**14. Discharge lamps for special purposes containing lead as activator in the fluorescent powder (1% lead by weight or less)**

- Do feasible substitutes currently exist in an industrial and/or commercial scale?
- Do any restrictions apply to such substitutes?
- What are the costs and benefits and advantages and disadvantages of such substitutes?
- Please indicate a precise wording for this exemption.

**15. Discharge lamps containing lead in the form of an amalgam**

- Do feasible substitutes currently exist in an industrial and/or commercial scale?
- Do any restrictions apply to such substitutes?
- What are the costs and benefits and advantages and disadvantages of such substitutes?
- Please indicate a precise wording for this exemption.

**16. Mercury free flat panel lamp**

- Do feasible substitutes currently exist in an industrial and/or commercial scale?
- Do any restrictions apply to such substitutes?
- What are the costs and benefits and advantages and disadvantages of such substitutes?
- Please indicate a precise wording for this exemption.

- 17. Special purposes Black Light Blue (BLB) lamps, containing lead in the glass envelope**
- Do feasible substitutes currently exist in an industrial and/or commercial scale?
  - Do any restrictions apply to such substitutes?
  - What are the costs and benefits and advantages and disadvantages of such substitutes?
  - Please indicate a precise wording for this exemption.

- 18. Low melting point alloys containing lead**
- Do feasible substitutes currently exist in an industrial and/or commercial scale?
  - Do any restrictions apply to such substitutes?
  - What are the costs and benefits and advantages and disadvantages of such substitutes?
  - Please indicate a precise wording for this exemption.

- 19. Galvanised steel containing up to 0.35% lead by weight and aluminium with an unintended lead content up to 0.4% lead by weight in electrical and electronic equipment.**
- Do feasible substitutes currently exist in an industrial and/or commercial scale?
  - Do any restrictions apply to such substitutes?
  - What are the costs and benefits and advantages and disadvantages of such substitutes?
  - Please indicate a precise wording for this exemption.

- 20. Lead in solder, hexavalent chromium in surface treatment, in parts recovered from production printers and copying equipments, sold, rented or leased or otherwise returned from professional users other than private households, originally put on the market before 1 July 2006, and reused for the same purpose within the original manufacturer's closed loop system until 1 July 2011. In this context a closed loop system means a system whereby the equipment remains the property of the manufacturer or is subject to other contractual arrangements and is returned to the manufacturer either when the contract expires or at the end of life.**
- Do feasible substitutes currently exist in an industrial and/or commercial scale?
  - Do any restrictions apply to such substitutes?
  - What are the costs and benefits and advantages and disadvantages of such substitutes?
  - Please indicate a precise wording for this exemption.

- 21. Cadmium in sulphide photocells**
- Do feasible substitutes currently exist in an industrial and/or commercial scale?
  - Do any restrictions apply to such substitutes?
  - What are the costs and benefits and advantages and disadvantages of such

- substitutes?
- Please indicate a precise wording for this exemption.

**22. Applications of lead, mercury, cadmium, hexavalent chromium, PBBs and PBDEs in electrical and electronic equipment in the aeronautic and aerospace sectors that requires high safety standards**

- Do feasible substitutes currently exist in an industrial and/or commercial scale?
- Do any restrictions apply to such substitutes?
- What are the costs and benefits and advantages and disadvantages of such substitutes?
- Please indicate a precise wording for this exemption

Interested parties are invited to send their comments by **11 February 2005** at the latest by e-mail to [ENV-RoHS@cec.eu.int](mailto:ENV-RoHS@cec.eu.int) or by post to:

European Commission  
DG Environment, Unit G4 – Consultation Directive 2002/95/EC  
B-1049 Brussels, Belgium.

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Responses submitted electronically will be posted on this web site as they are received, unless respondents specifically request that their contribution should not be publicised. In the latter case, responses should be clearly and visibly marked with the words "Not for publication".

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