

[Question]

We would like to reiterate the open issues and the need for clarification as discussed:

General question

Could you agree to a rewording as follows:

- (1) "Lead in optical glasses" or "Lead in white glasses used for optical applications"
- (2) Cadmium in filter glasses

[JBCE Answer]

We propose using wording as follows.

- 1) "Lead in optical glasses"and
- 2) "Lead and cadmium in filter glasses"

	Content in optical glasses	Content in filter glasses
Lead	Must be exempted from application of RoHS Directive	Must be exempted from application of RoHS Directive
Cadmium	No need to exempt from application of RoHS Directive	Must be exempt from application of RoHS Directive

[Question]

Specific questions: JBCE & Spectaris:

- 1. Which specific applications of cadmium for optical filter glass can be assigned to WEEE Category 8 and 9?

[JBCE Answer]

As we explained at Stakeholder meeting in June, the necessary substance is not only Cadmium but also Lead for optical filter glass.

Both Lead and Cadmium are indispensable for all equipments which requires specific wavelengths, such as [Spectrophotometer -Ultraviolet (UV), Visible (VIS),Near-infrared (NIR)-, Infrared radiation thermometer, Light applied ingredient meter, Thickness meter, Fluorescence microscope, medical-use endoscopes (and surgical microscopes and colposcopes), IVD analyzer, Microscopes and optical application equipment products in the industrial sector, etc.,]

To obtain the appropriate wavelengths is essential for the spectroscopic methods. In order to obtain such wavelengths filters containing both lead and cadmium are necessary.

- Please refer to the attached presentation file at last stakeholder meeting, "JBCE RoHS-#13.ppt" additional input, "JBCE Lead & Cadmium in optical Filter Glass", and "JBCE Lead in Optical Glass" in the paragraph [B. Application to industrial-use optical instruments]

[Question]

- 2. Which specific applications of cadmium for optical filter glass can be assigned to other categories?

[JBCE Answer]

The necessary substance is not only Cadmium but also Lead for optical filter glass.

It is very difficult to check out the equipments in all categories completely, we suggest the rough sketch as we

contributed on 1st April.

Exemption 13 is used for a small number of components contained in the following wide range of image equipment, optical equipment:

	Category	Optical glass	Filter glass
1	Large home appliances	Probably no use.	Probably no use.
2	Small home appliances	Probably no use.	Probably no use.
3	IT, communication equipment	Copy machine, projector, scanner, Fax, printer, other specific image equipment, and so on	
4	Consumer appliances	TV (projection type), other image equipment, and so on	
5	Lighting equipment	Lighting equipment for special purposes of use (may be used as a possibility)	
6	Power tools	Probably no use.	Probably no use.
7	Toy, leisure, exercise	Possible use.	Possible use.
8	Medical equipment	Endoscope, other medical service optical goods, and so on	
9	Monitor, controller	Measuring, weighing or adjusting appliances for as laboratory equipment, other monitoring and control instruments used in industrial installations, and so on (*As it is especially difficult to specify the scope of this category, specification cannot be easily made.)	
10	Vending machine	Probably no use.	Probably no use.

[Relation with Exemption 5]

Materials classified in Exemption 13 may be used for some electronic parts, but electronic parts manufacturers in general do not disclose related information.

Such electronic parts may be used in Categories 3, 4, 8, 9, and so on.

[Question]

3. Which specific applications of lead for optical glass can be assigned to WEEE Category 8 and 9?

We understand that the details are provided in the “**Review of Directive 2002/95/EC (RoHS) Categories 8 and 9 - Final Report**” issued in July 2006 by ERA Technology Limited.

Table 44, “Current exemptions to the RoHS Directive” of section 10, “Requests for exemptions” (Page 158), provides a description of exemptions and exemptions to Category 8 and 9 products at that time. Endoscopes and microscopes are indicated as “Example applications” for “Lead and cadmium in optical and filter glass.” of the “Exempt. no. 13” in this table. (See the table below.)

Exempt. no.	Description	Used for cat. 8 & 9?	Example applications
13.	Lead and cadmium in optical and filter glass.	Yes	Endoscopes, microscopes,

We proposed the necessity of lead and cadmium in optical and filter glasses in a written opinion submitted on April 1st, and also at the STAKEHOLDER CONFERENCE held from June 9th to 13th, 2008.

The following functions can be implemented by adding lead and cadmium in optical glasses.

- High refractive index
- High dispersion
- High transmittance in the near-ultraviolet zone
- Anomalous dispersion
- Wavelength selectivity

These functions are absolutely essential conditions for forming images. The example applications of lead and cadmium are given below.

- Please refer to the attached file, [“JBCE Lead in Optical Glass”](#)