



ORGALIME RoHS GUIDE

**A practical Guide to understanding
the specific obligations of**

**Directive 2002/95/EC on the Restriction
of the Use of Certain
Hazardous Substances in EEE (RoHS)**

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FOREWORD

Directive 2002/95/EC on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (known as the “RoHS Directive”) restricts the use of lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyls and polybrominated diphenylethers in certain electrical and electronic equipment as from 1 July 2006.

The purpose of this ORGALIME Guide is to explain in some detail the obligations arising from Directive 2002/95/EC and to define its consequences for ORGALIME, whether they are directly targeted by the Directive or not.

It reflects the best knowledge of industry experts across Europe and the state of the art at the moment of its publication (update). The principles contained in this Guide are however not legally binding. A binding interpretation of Community legislation is the exclusive competence of the European Court of Justice. ORGALIME also recommends to producers when applying this Guide and its principles to always refer to the national legislation of the member state they are dealing with.

This ORGALIME Guide is to be considered as complementary to other ORGALIME Guides on the WEEE and RoHS Directives¹.

ORGALIME’s 34 trade federation members in 23 EU countries represent some 130,000 companies in the mechanical engineering, electrical, electronic and metalworking industries. The industry employs some 7 million people and includes a substantial majority of small and medium-sized companies. Our industry generates 1,235 billion euro of output per year and account for over a quarter of the production and a third of the industrial exports of the European Union.

¹ ORGALIME GUIDE “A practical Guide to understanding the EC Directives on Waste Electrical and Electronic Equipment (WEEE) and on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) of 27 January 2003”, published in April 2003; ORGALIME GUIDE “ A practical Guide to understanding the scope of Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE) and Directive 2002/95/EC on the Restriction of the Use of Certain Hazardous Substances in EEE (RoHS) of January 2006; “ORGALIME Guide to contractual options for producers selling business-to-business equipment - Contract Clauses for WEEE Obligations” (March 2006).

1. CONTENTS OF THE DIRECTIVE

1.1 PURPOSE OF THE DIRECTIVE²

As from 1 July 2006, Directive 2002/95/EC on the Restriction of Hazardous Substances (RoHS) restricts the use of lead, cadmium, hexavalent chromium, mercury and polybrominated biphenyls (PBB) and polybrominated diphenylethers (PBDE) for new electrical & electronic equipment put on the market.³

The RoHS Directive is based on Article 95 of the EC Treaty and therefore aims at harmonising the legislation of Member States in the area of restricting the Use of Certain Hazardous Substances in Electrical and Electronic Equipment.

The annex of the RoHS Directive provides for a list of applications, which for the time being are exempted from the requirements of the Directive. This annex of the RoHS Directive is subject to adaptation to scientific and technical progress under the so-called Comitology Procedure (see chapter 1.5).

1.2 SCOPE

The RoHS Directive applies to certain types of electrical and electronic equipment that are "put on the market" (see 1.3) as from 1 July 2006 as a finished product.

However, manufacturers of components, sub-assemblies, and spare parts for such equipment are also affected:

While single components or parts of finished products are not in the scope of the RoHS Directive, as such, the directive's approach of addressing material contents and restrictions of material use in a given finished product indirectly implies requirements to those of its parts (material, components, sub-assemblies), which contain the restricted substances, apart from exempted applications that are listed in the annex to the directive and in finally adopted and published amendments to it.

The RoHS Directive applies without prejudice to Community legislation on safety and health requirements and specific Community waste management legislation, in particular Council Directive 91/157/EEC of 18 March 1991 on batteries and accumulators containing certain dangerous substances.

On 24 May 2005, the Commission adopted a "Frequently Asked Questions" document⁴ on the WEEE and RoHS Directives. It was (prior to publication/update of this Guide) updated in February, June and August 2006. In this "Frequently Asked Questions" document it is stated that the RoHS Directive applies to electrical and electronic equipment, but does not apply to batteries.

Only the following product categories fall within the scope of the RoHS directive:

- Large household appliances
- Small household appliances
- IT and telecommunications equipment
- Consumer equipment
- Lighting equipment (electric light bulbs and luminaires in households are explicitly included)
- Electrical and electronics tools, with the exception of large-scale stationary industrial tools
- Toys, sports and leisure equipment
- Automatic dispensers

² See also ORGALIME Guide "A practical Guide to understanding the EC Directives on Waste Electrical and Electronic Equipment (WEEE) and on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) of 27 January 2003", published in April 2003.

³ Please note: PentaBDE and OctaBDE are restricted by Directive 2003/11/EC.

⁴ Frequently Asked Questions document available at: http://europa.eu.int/comm/environment/waste/weee_index.htm

In order to address some of the questions relating to the **scope** of the RoHS Directive, Orgalime has developed a specific guide⁵ that identifies the various criteria for determining whether a specific equipment falls under the scope of the RoHS Directive or not.

1.3 TERMS AND DEFINITIONS

Legal certainty is a pre-requisite for the proper implementation of the RoHS Directive. Common definitions are necessary to ensure that the technical requirements for RoHS compliance of all electrical and electronic products are exactly the same in all Member States in order to ensure a level playing field for manufacturers, free circulation and smooth market access for electrical and electronic products in the EU.

- **Maximum Concentration Values (MCVs)**

Article 5.1.a of the RoHS Directive provides for the establishment of maximum concentration values for restricted substances under the RoHS Directive.

On 18 August 2005, the European Commission adopted a decision⁶, which establishes the following maximum concentration values:

For the purposes of Article 5(1)(a) RoHS, a maximum concentration value of 0.1% by weight in homogeneous materials for lead, mercury, hexavalent chromium, polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PBDE) and of 0.01% by weight in homogeneous materials for cadmium shall be tolerated.

The actual concentration value in % is obtained by **dividing the weight of the substance by the weight of the homogeneous material that contains this substance multiplied by 100**.

- **Homogeneous material**

On 24 May 2005, the Commission adopted a “Frequently Asked Questions” document⁷ on the WEEE and RoHS Directives. This “Frequently Asked Questions” document (last updated in August 2006) includes the following definition of homogeneous material:

Homogeneous material means a material that cannot be mechanically disjointed into different materials.

Definitions:

The term “homogeneous” means “of uniform composition throughout”. Examples of “homogeneous materials” are individual types of: plastics, ceramics, glass, metals, alloys, paper, board, resins, coatings.

The term “mechanically disjointed” means that the materials can, in principle, be separated by mechanical actions such as: unscrewing, cutting, crushing, grinding and abrasive processes.

Examples:

⁵ ORGALIME GUIDE “ A practical Guide to understanding the scope of Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE) and Directive 2002/95/EC on the Restriction of the Use of Certain Hazardous Substances in EEE (RoHS) of January 2006 –see <http://www.orgalime.org>

⁶ Decision 2005/618/EC of 18 August 2005 available at:
http://europa.eu.int/comm/environment/waste/weee_index.htm

⁷ Frequently Asked Questions document available at http://europa.eu.int/comm/environment/waste/weee_index.htm

- A plastic cover is a "homogeneous material" if it consists of one type of plastic that is not coated with or has attached to it or inside it any other kinds of materials. In this case the limit values of the Directive would apply to the plastic.
- An electric cable that consists of metal wires surrounded by non-metallic insulation materials is an example of a "non-homogeneous material" because the different materials could be separated by mechanical processes. In this case the limit values of the Directive would apply to each of the separated materials individually.
- A semi-conductor package contains many homogeneous materials, which include: plastic moulding material, tin-electroplating coatings on the lead frame, the lead frame alloy and gold-bonding wires.

- **“Put on the market”**

RoHS requirements apply to electrical and electronic equipment put on the market as from 1 July 2006.

The RoHS directive, however, does not include a definition of “put on the market”. “Put on the market” is defined and further specified in the Commission’s Frequently Asked Questions document of 24 May 2005 (last updated in August 2006), which refers to the *Commission’s Guide to the implementation of directives based on the New Approach and the Global Approach*⁸, as follows:

The words “put on the market” in Article 10(3) of the WEEE Directive and Article 4(1) of the RoHS Directive refer to the initial action of making a product available for the first time on the Community market. This takes place when the product is transferred from the producer to a distributor or a final consumer or user on the Community market.

“Making a product available for the first time” refers to each individual piece of equipment put on the market after the date for the substances restrictions (that is 1 July 2006), and not to the launch of a new product or product line. Moreover the concept of putting on the market refers to each individual product, not to a type of product, irrespective of whether it was manufactured as an individual unit or a series.

The same or a similar term is used in many directives, such as internal market directives based on the “New Approach and the Global Approach”, where it is also understood as the first making available of a product on the Community market.

In order to assess whether a product has been put on the market, it has to be determined on a case by case assessment whether the relevant action has led to the fact that the product is *made available on the EU market* for the first time.

The guide to the implementation of directives based on the New Approach and the Global Approach clarifies the concept of “placing on the market” and provides further *guidance* to its interpretation:

Placing on the market is the initial action of making a product available for the first time on the Community market, with a view to distribution or use in the Community. Making available can be either for payment or free of charge [...].⁹ A product is placed on the Community market when it is made available for the first time. This is considered to take place when a product is transferred from the stage of manufacture with the intention of distribution or use on the Community market [...].

⁸ The Commission’s “Guide to the implementation of directives based on the New Approach and Global Approach” (also called “Blue Book”), published in 2000 by the European Commission, DG Enterprise, is available at: <http://europa.eu.int/comm/enterprise/netwepproach/legislation/guide/legislation.htm>

⁹ Please note: The Blue Book (reference (31) on pages 18/19) explicitly states: “The distribution chain can also be the commercial chain of the manufacturer or authorised representative.”

The transfer of the product takes place either from the manufacturer, or the manufacturer's authorised representative in the Community, to the importer established in the Community or to the person responsible for distributing the product on the Community market. The transfer may also take place directly from the manufacturer, or authorised representative in the Community, to the final consumer or user. The product is considered to be transferred either when the physical hand-over or the transfer of ownership has taken place. This transfer can be for payment or free of charge, and it can be based on any type of legal instrument. Thus, a transfer of a product is considered to have taken place, for instance, in the circumstances of sale, loan, hire, leasing and gift.

See <http://europa.eu.int/comm/enterprise/newapproach/legislation/guide/legislation.htm>

Furthermore, products must be in compliance with the applicable New Approach Directives, and other Community legislation, when they are placed on the market. Accordingly, new products manufactured in the Community and all products imported from third countries – whether new or used – must meet the provisions of the applicable directives when made available for the first time on the Community market.

Retailers and distributors, who have non-RoHS compliant products in their warehouses after 1 July 2006, can legally sell such products, provided that these products were put on the market before 1 July 2006. Retailers and distributors cannot require producers to take back such products.

NOTE: On 9 February 2006, the European Court of Justice ruled in a ruling on the notion "put into circulation" under Directive 85/374/EEC on liability for defective products that "a product is "put into circulation" when it is taken out of the manufacturing process operated by the producer and enters a marketing process in the form in which it is offered to the public in order to be used or consumed".

1.4 REMANUFACTURED EQUIPMENT

The RoHS Directive "does not apply to spare parts for the repair, or to the reuse, of electrical and electronic equipment put on the market before 1 July 2006" (see article 2.3 RoHS).

However, following the Commission's Frequently Asked Questions document, such spare parts cannot be used to repair equipment that is put on the market after 1 July 2006. This applies to the case that the spare parts when put on the market are within the scope of the directive in their own right.

The key date for compliance is therefore the date at which the initial product was "put on the market," not the date when it was returned for repair and/or capacity expansion and/or upgrade.

The use of non-RoHS compliant material in electrical and electronic equipment put on the market before 1 July 2006 for the purposes of repair and/or capacity expansion and/or upgrade is allowed in principle, provided that the electrical and electronic equipment is not put on the market as a new product. If, after the repair and/or capacity expansion and/or upgrade, the electrical and electronic equipment is put on the market as a new product, it should comply with the RoHS Directive unless subject to a specific exemption.

However, if after repair and/or capacity expansion and/or upgrade, the electrical and electronic equipment is put on the market as a reused product, the RoHS Directive does not apply.

1.5 EXEMPTIONS

The RoHS Directive exempts certain applications from the RoHS substance restrictions, because the use of hazardous substances in specific materials and components is technically or scientifically impracticable or because the negative environmental, health and/or consumer safety impact caused by substitution would be likely to outweigh the environmental, health and/or consumer safety benefits thereof for maintaining suitability for use and/or safety of the electrical and electronic equipment.

In order to adapt the annex of the RoHS directive to technical and scientific progress, the Commission

has to date adopted six amendments to the RoHS annex:

- Decision 2005/717/EC of 13 October 2005
- Decision 2005/747/EC of 21 October 2005
- Decision 2006/310/EC of 21 April 2006
- Decision 2006/690/EC of 12 October 2006
- Decision 2006/691/EC of 12 October 2006
- Decision 2006/690/EC of 12 October 2006

The finally adopted Commission decisions are available at:

http://europa.eu.int/comm/environment/waste/weee_index.htm

Annex A of this ORGALIME Guide provides a consolidated list of exemptions that have to date been adopted by the European Commission and published in the Official Journal of the European Union.

Additional exemption requests have been made to the European Commission and are still pending. Once finally decided and if accepted, these will be published in the Official Journal of the European Union and made available at the website mentioned above¹⁰.

Commission decision 2005/717/EC of 13 October 2005, which exempts Deca-BDE in polymeric applications and lead in lead bronze bearing shells and bushes, has been brought before the European Court of Justice by the European Parliament and a number of member states.

Furthermore, certain member states¹¹ have diverged or may diverge from the present decision to exempt Deca-BDE in polymeric applications by coming forward with specific national restrictions.

While the respective Commission decision remains in place until a final decision of the European Court of Justice on the Deca-BDE case will have been taken, please note that the Commission has in June 2006 issued a letter to member states that gives the following additional Commission interpretation to this particular exemption:

“Directive 2002/95/EC (the “RoHS” Directive) prohibits the use of polybrominated diphenyl ethers (“PBDEs”) in electrical and electronic equipment. The maximum concentration of these one of these chemicals tolerated is 0.1% by weight in any homogeneous material (Decision 2005/618/EC). By its Decision 2005/717/EC the Commission exempted one of these chemicals, decaBDE, from the prohibition for the use in polymeric applications.

However, commercial decaBDE contains around 3% impurities of nonaBDE. Since commercial decaBDE is often used in high concentrations in polymers this can result in nonaBDE concentrations above the tolerated maximum concentration level. For example, using 10% of decaBDE would result in 0.3% nonaBDE.

The Commission services are of the opinion that – with the exception of decaBDE – all PBDEs, including nonaBDE that is introduced into a material as part of decaBDE, have to comply with the substance ban of Article 4 of the Directive and with the maximum tolerance levels set by Decision 2005/618/EC. Homogeneous materials containing above 0.1% by weight of nonaBDE therefore do not comply with the provisions of the Directive.

Please note that this opinion of the Commission services is not legally binding since a legally binding interpretation of Community legislation is, under the Treaty, the exclusive competence of the European Court of Justice”.

In general, each exemption included in the RoHS annex will be revisited at least every 4 years or 4 years after an item has been added to the list of RoHS annex (see article 5.1.c. RoHS). For this reason, any statements related to compliance with the RoHS Directive should be dated, and should reference the Directive and all amendments to it (e.g. additions to the list of exemptions) against which compliance is claimed.

¹⁰ Please also see Orgalime’s overview “Status RoHS exemptions” available at www.orgalime.org.

¹¹ For Sweden and Denmark read more at <http://www.mim.dk/Nyheder/Pressemeddelelser/2006-01-02> and <http://www.regeringen.se/sb/d/6033/a/52667>

2. WHAT INFORMATION NEEDS TO BE PROVIDED TO THE CUSTOMER?

2.1 PRODUCTS FALLING WITHIN THE SCOPE OF THE ROHS DIRECTIVE

The RoHS Directive does not include any provisions relating to the provision of information to the customer. Therefore:

- The RoHS Directive does not require producers to provide a material declaration.

Compliance should be based on the principles of presumption of conformity, the manufacturer's self and voluntary declaration. This means that no mandatory third party certification would be required.

If there is a reason to doubt RoHS compliance, the producer who put the finished product on the market must be able, at the request of the market surveillance authority, to demonstrate compliance through documentation. The producer could provide evidence such as declarations of conformity for components and materials, test results, evidence of evaluation of suppliers, contractual agreements with suppliers, or other suitable material. Testing of products by the market surveillance authority should, in our view, be done only when there is a justified reason to doubt that a product is RoHS-compliant.

- Product marking:
The RoHS Directive does not require manufacturers to mark products on a mandatory basis to show that they comply with the RoHS requirements. There is neither a RoHS Directive requirement for the product to bear the CE marking¹², nor a RoHS Directive requirement for the producer to establish a Declaration of Conformity (DoC).

2.2 PRODUCTS FALLING OUTSIDE THE SCOPE OF THE ROHS DIRECTIVE

The obligations under the RoHS Directive do not apply to any product that falls outside the scope of the Directive.

It is perfectly legal to buy and sell products that are not in the scope of the RoHS Directive. These products need not meet the material restrictions specified in the RoHS Directive.

Components, sub-assemblies and spare parts of electrical and electronic equipment are addressed in sections 1.2 and 1.4 of this Guide.

¹² The requirement to bear the CE marking may however result from other EU directives that apply to the product falling under the RoHS Directive, e.g.: Low voltage or Electromagnetic compatibility directives.

3. HOW TO ANSWER QUESTIONS CONCERNING ROHS COMPLIANCE?

☞ Suggested short answers for the purpose of product compliance declaration

For a finished product:

"We hereby declare (legally binding) that all products supplied to you meet the requirements of the RoHS Directive (Status: ...Date of actual version)".

For a component:

"Our components supplied to you meet the material restrictions specified in the RoHS Directive".

Or

"We are in the process of checking our products and we will inform you of the results no later than (... Date)".

☞ Suggested answers in case of an exemption or in case of voluntary substitution

"For new developments we will be able to substitute these substances in future as from (date ...)"

"For technical (or other) reasons, a substitution of these substances is not possible today."

"Our products supplied to you do not fall under the scope of Directive 2002/95/EC ("RoHS"). They also will not be incorporated – according to our knowledge – into products falling under the scope of this directive. Should you wish our products to still meet the requirements of RoHS, a suitable contract would need to be agreed."

☞ Suggested possible additional wording

"All necessary measures and actions have been taken in conjunction with suppliers to ensure that constitutive materials do not include any substance forbidden by the regulations currently applicable to (or in) the market."

"Our products supplied to you contain substance(s) (xxx) for which exemptions are given under Directive 2002/95/EC ("RoHS"). As from (date), we will ensure that the products put on the Community market for the first time¹³ meet the requirements of RoHS. If, due to your supply chain delivery times, you need these products well in advance of 1 July 2006, an agreement between us will be necessary."

"Our products supplied to you contain substance(s) (xxx) which are restricted by Directive 2002/95/EC ("RoHS") (add list of products if necessary). As an alternative solution we can offer as from (date xxx) the following material(s) substitution(s): xxx. Please give us your approval to supply these products."

"Our products supplied to you do not contain substances (substance xxx) in excess of the maximum concentration value (MCV) of 0.1 wgt-% (0.01 wgt-% for Cadmium) as specified in Commission decision 2005/618/EC to Directive 2002/95/EC ("RoHS"). These MCVs apply to homogeneous material."

¹³ "Put on the market" relates to products within the scope of the RoHS Directive (see 1.2). To ensure that the deadline for final products is met, sufficient handling time (lead time) within the supply chain is necessary.

➤ **Suggested answer for parts of a fixed installation (e.g.: industrial monitoring, controls and drive components):**

“This product is intended to be part of a “large-scale stationary industrial tool” or a “fixed installation”. According to Directive 2002/95/EC, published on 13 February 2003 and the European Commission's “Frequently Asked Questions” paper of 24 May 2005 (lastly updated February 2006), “ large-scale stationary industrial tools” and “fixed installations” “ are explicitly outside the scope of the RoHS (and WEEE) Directive and are therefore not subject to the material restrictions specified in the RoHS Directive.

ANNEX A

Consolidated list of RoHS exemptions

Directive 2002/95/EC and

Decision 2005/717/EC, Decision 2005/747/EC, Decision 2006/310/EC Decision 2006/690/EC, Decision 2006/691/EC, Decision 2006/692/EC

1. Mercury in compact fluorescent lamps not exceeding 5 mg per lamp.
2. Mercury in straight fluorescent lamps for general purposes not exceeding:
 - Halophosphate 10 mg
 - Triphosphate with normal lifetime 5 mg
 - Triphosphate with long lifetime 8 mg.
3. Mercury in straight fluorescent lamps for special purposes.
4. Mercury in other lamps not specifically mentioned in this Annex.
5. Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.
6. Lead as an alloying element in steel containing up to 0,35 % lead by weight, aluminium containing up to 0,4 % lead by weight and as a copper alloy containing up to 4 % lead by weight.
7. - Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead),
-Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission as well as network management for telecommunications,
- Lead in electronic ceramic parts (e.g. piezoelectronic devices).
8. Cadmium and its compounds in electrical contacts and cadmium plating except for applications banned under Directive 91/338/EEC*) amending Directive 76/769/EEC**) relating to restrictions on the marketing and use of certain dangerous substances and preparations¹⁴.
*) OJ L 186, 12.7.1991, p.59
**) OJ L 262, 27.9.1976, p. 201
9. Hexavalent chromium as an anti-corrosion of the carbon steel cooling system in absorption refrigerators.
- 9a. Deca BDE in polymeric applications.¹⁵
- 9b. Lead in lead-bronze bearing shells and bushes.
10. Within the procedure referred to in Article 7(2), the Commission shall evaluate the applications for
 - Deca BDE
 - Mercury in straight fluorescent lamps for special purposes,
 - Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission as well as network management for telecommunications (with a view to setting a specific time limit for this exemption), and
 - Light bulbs,as a matter of priority in order to establish as soon as possible whether these items are to be amended accordingly.
11. Lead used in compliant pin connector systems.
12. Lead as a coating material for the thermal conduction module c-ring.
13. Lead and cadmium in optical and filter glass.
14. Lead in solders consisting of more than two elements for the connection between the pins and the

¹⁴ The Commission currently considers replacing point 8 of Commission Decision 2005/747/EC as follows:
(a) *Cadmium and its compounds in electrical contacts until 1 July 2009, except for mechanical pellet-type one shot thermal cut-offs as from 1 July 2007 and except for applications banned under Directive 91/338/EEC amending Directive 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations.*

AND

(b) *Cadmium plating as defined in Directive 91/338/EEC except for applications banned under Directive 91/338/EEC amending Directive 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations.*

¹⁵ Please note that in a letter to member states in June 2006, the Commission has given its additional interpretation to the scope of this exemption (see page 9 of this Orgalime Guide)

15. package of microprocessors with a lead content of more than 80 % and less than 85 % by weight.
16. Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.
17. Lead in linear incandescent lamps with silicate coated tubes.
18. Lead halide as radiant agent in High Intensity Discharge (HID) lamps used for professional reprography applications.
19. Lead as activator in the fluorescent powder (1% lead by weight or less) of discharge lamps when used as sun tanning lamps containing phosphors such as BSP (BaSi2O5:Pb) as well as when used as speciality lamps for diazo-printing reprography, lithography, insect traps, photochemical and curing processes containing phosphors such as SMS ((Sr, Ba)2MgSi2O7:Pb).
20. Lead with PbBiSn-Hg and PbInSn-Hg in specific compositions as main amalgam and with PbSn-Hg as auxiliary amalgam in very compact Energy Saving Lamps (ESL).
21. Lead oxide in glass used for bonding front and rear substrates of flat fluorescent lamps used for Liquid Crystal Displays (LCD).¹⁶
22. Lead and cadmium in printing inks for the application of enamels on borosilicate glass.
23. Lead as impurity in RIG (rare earth iron garnet) Faraday rotators used for fibre optic communications systems.
24. Lead in finishes of fine pitch components other than connectors with a pitch of 0.65 mm or less with NiFe lead frames and lead in finishes of fine pitch components other than connectors with a pitch of 0.65 mm or less with copper lead-frames.
25. Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors.
26. Lead oxide in plasma display panels (PDP) and surface conduction electron emitter displays (SED) used in structural elements; notably in the front and rear glass dielectric layer, the bus electrode, the black stripe, the address electrode, the barrier ribs, the seal frit and frit ring as well as in print pastes.
27. Lead oxide in the glass envelope of Black Light Blue (BLB) lamps.
28. Lead alloys as solder for transducers used in high-powered (designated to operate for several hours at acoustic power levels of 125 dB SPL and above) loudspeakers.
29. Hexavalent chromium in corrosive preventive coatings of unpainted metal sheetings and fasteners used for corrosion protection and Electromagnetic Interface Shielding in equipment falling under category three of Directive 2002/96/EC (IT and telecommunications equipment). Exemption granted until 1 July 2007.
30. Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC.
31. *“Lead in solder in parts recovered from waste or used gaming / amusement machines returned from business customers, originally put on the market before 1 July 2006, and traceably re-used for the same purpose within the original manufacturer’s closed loop refurbishment system until 1 July 2010”.*¹⁷
32. *“Cadmium and cadmium oxide in thick film pastes used on beryllium oxide substrates until December 31, 2007”.*¹⁸
33. *“Cadmium alloys as electrical/mechanical solder joints to electrical conductors located directly on the voice coil in transducers used in high powered loudspeakers with sound pressure levels of 100dB (A) and more until 30 June 2010”.*¹⁹
34. *“Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes”.*²⁰

¹⁶ The Commission currently considers replacing point 20 of Commission Decision 2006/310/EEC as follows:
“Lead in soldering materials in mercury free flat fluorescent lamps (which e.g. are used for liquid crystal displays, design or industrial lighting)”.

¹⁷ Additional exemption under consideration: not yet confirmed

¹⁸ Additional exemption under consideration: not yet confirmed

¹⁹ Additional exemption under consideration: not yet confirmed

²⁰ Additional exemption under consideration: not yet confirmed

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ORGALIME PUBLICATIONS

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Model Forms

- Agency contract - International agency on an exclusive basis ⁽⁵⁾
- Exclusive agreement with distributors abroad
- International technology licence agreement (Inside EU/EEA version)
- International technology licence agreement (Outside EU/EEA version)
- Consortium agreement
- Original equipment manufacturer contract (OEM contract) ⁽¹⁾

Guides

- Pressure Equipment Directive
- Guide for drawing up an international development contract ⁽²⁾
- Security for payment in credit sales ⁽³⁾
- Guide on S 2000 ⁽²⁾
- A practical Guide to understanding Directives 2002/96/EC (WEEE) and 2002/95/EC (RoHS), April 2003 ⁽³⁾
- A practical Guide to understanding the scope of Directive 2002/96/EC on WEEE and Directive 2002/95/EC on RoHS, January 2006 ⁽⁵⁾
- Guide to understanding the specific obligations of Directive 2002/95/EC (RoHS), March 2006 (last update: August 2006) ⁽³⁾
- Guide to contractual options for producers selling business-to-business equipment – Contract clauses for WEEE obligations, March 2006 ⁽³⁾
- Guide to defect liability in Europe ⁽³⁾
- European Competition Law in Practice – 30 key points ⁽²⁾
- Cooperation Agreements: A short guide to the creation of a joint venture ⁽³⁾
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Conditions of contract

- General conditions for the supply of mechanical, electrical and associated electronic products - S 2000 ⁽⁸⁾
- Supplementary conditions for the supervision of erection of mechanical, electrical and electronic products – S2000 S ⁽⁷⁾
- General conditions for Computer Software – SW 01 ⁽⁷⁾
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- General conditions for the repair of machinery and equipment - R 02
- Turnkey Contract for Industrial Works ⁽³⁾

(1) English & French only

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