

Electrical and electronic devices - RoHS Conformity

From July 2006, electrical and electronic products marketed in the European Union are restricted with regard to the use of several specific substances. Restricted substances are cadmium, mercury, lead, hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE).

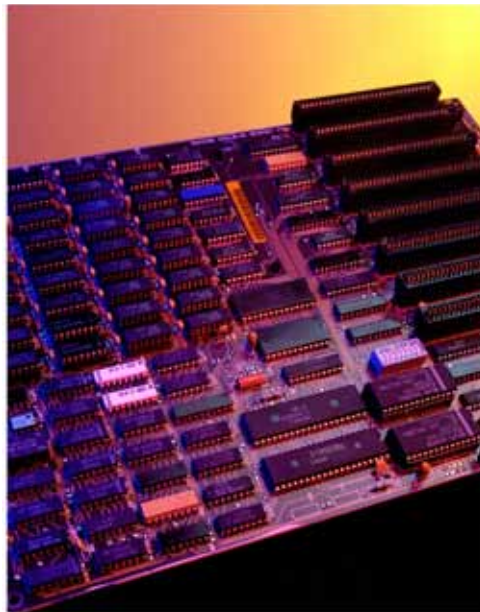
This was defined in the European Directives 2002/95/EC (Directive on the Restriction Of Hazardous Substances in electrical and electronic equipment - RoHS) and 2002/96/EC (Directive on Waste Electrical and Electronic Equipment - WEEE).

Products concerned

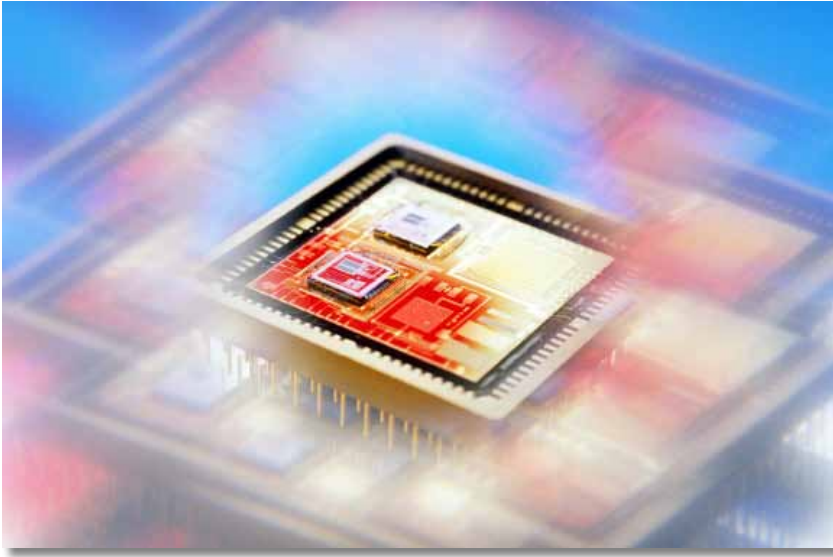
- Household appliances
- Consumer electronics equipment
- Information technology equipment
- Leisure and sports equipment
- Toys
- Lighting products
- Power tools
- Automatic machines

Substance restrictions

- | | |
|---|-----------------------------|
| • Pb (Lead and its compounds) | not more than 0.1 weight-% |
| • Cd (Cadmium and its compounds) | not more than 0.01 weight-% |
| • Hg (Mercury and its compounds) | not more than 0.1 weight-% |
| • Cr-VI (Hexavalent chromium) | not more than 0.1 weight-% |
| • PBB and PBDE , each
(Polybrominated flame protecting agents) | not more than 0.1 weight-% |



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4. After the verification test procedure it will be clear whether the sample is in compliance with RoHS requirements.

Test report

If RoHS conformity is given then this will be documented in a comprehensive laboratory report and in a certificate of conformity. Model report and certificate may be required from the testing lab.

Your profit

The RoHS conformity is a must for placing your products on European and international market. With RoHS certification the requirements of down-stream users and retailers can be fulfilled.

Testing and certification fees

Fee for the X-Ray survey test of one homogeneous compound is below 100 €, though depending on the character of the product. Fee for further chemical analysis is depending on the result of the X-ray test, and on the complexity of the material.

You are welcome to contact your national Eurofins contact person, or directly the testing laboratory, for a specific quotation.

Testing Laboratory

Eurofins | AUA GmbH
Löbstedter Str. 78
07749 Jena, Germany
Tel.: +49 3641 4649 0
Email: info@aua-jena.de

Legal exemptions

The RoHS Directive exempts certain applications from the RoHS substance restrictions, because the substitution of hazardous substances may not be practical in specific materials and components. The exemptions can be found in the annex of the directive and in the decisions 2005/715/EC, 2005/747/EC and 2006/310/EC.

Test procedure

Eurofins | AUA Jena offers you RoHS compliance testing for any type of product. A step-by-step test procedure is followed as defined in the European standard EN 62321:

1. If the product is not uniform or is a complex unit, usually a first disassembly step is applied.
2. A survey test using X-ray fluorescence spectrometry provides a rapid semi-quantitative analysis of cadmium,

lead, mercury, total chromium and total bromine. XRF analysis gives only the total content of the elements, but does not give any information about the individual element species.

If there are significant levels of the involved elements detected, further investigation is necessary. But in case of absence the test may be stopped here.

3. If no screening is desired, or if the screening test procedure in step 2 does not give clear result, a verification test procedure is performed after a mechanical and a chemical sample preparation involving microwave digestion, acid digestion and/or solvent extraction.

The verification test procedure uses a variety of analytical procedures tailored to both the regulated substances and the type of sample.

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