

RoHS: Restriction of Hazardous Substances

The European Directive on the Restriction of Hazardous Substances limits the utilization of particular dangerous substances in the manufacture of electrical and electronic equipment. This also affects parts and components. If the equipment contains any of the prohibited substances, then, as of July 1, 2006, it must not be put on the European market. Manufacturers, brand resellers and importers of such devices are the ones who are called into obligation. They must continually monitor and document the compliance with RoHS.

These devices are affected:	These substances must not be utilized anymore:
<ul style="list-style-type: none"> • Large and small household appliances • IT and telecommunication equipment • Entertainment electronics • Lighting elements, light bulbs and lamps • Electrical and electronic tools • Toys, sport and recreational equipment • Medical devices • Monitoring and controlling instruments • Automatic output devices 	<ul style="list-style-type: none"> • Lead • Mercury • Hexavalent chrome • Polybrominated biphenyls (PBBs) • Polybrominated diphenyl ether (PBDE) • Cadmium

Krug und Petersen and Intertek: Consultation, assessment, management

Krug und Petersen informs about the rules and obligations as well as about the application for exemptions. A management system for the implementation in the supply chain, product development and manufacture process is being built up. Included are RoHS assessment and certification through Intertek Deutschland GmbH. Krug und Petersen and Intertek Deutschland GmbH, both renowned experts in environmental issues, have joined forces to offer their customers a comprehensive RoHS service package.

Krug und Petersen Government Affairs & Consulting GmbH

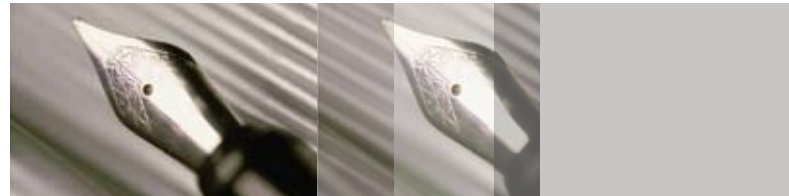
already offers complete services packages for the fulfillment of the legal obligations arising from the electronic equipment laws in line with the EU Directives WEEE and RoHS. Companies from all over the world make use of the take back and recycling services of electrical and electronic equipment in the EU member states and in other European countries.

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Intertek is a worldwide leading provider of services which focus on quality and security in the product and materials analysis, and oversees many different branches – global and local.

The cooperation with Intertek represents a real added value for products of the customers and for production processes, and, thus, supports their success in the worldwide markets. Intertek has at its disposal the experience, resources and a global network of 930 laboratories and 18,000 employees in 109 countries.

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COMMUNICATIONS GOVERNMENT AFFAIRS CORPORATE SERVICES

Krug und Petersen GmbH, Tübingen, Status November 2007

K R U G U N D P E T E R S E N
COMMUNICATIONS GOVERNMENT AFFAIRS CORPORATE SERVICES

RoHS Management

Ensure the EU-wide compliance of your products

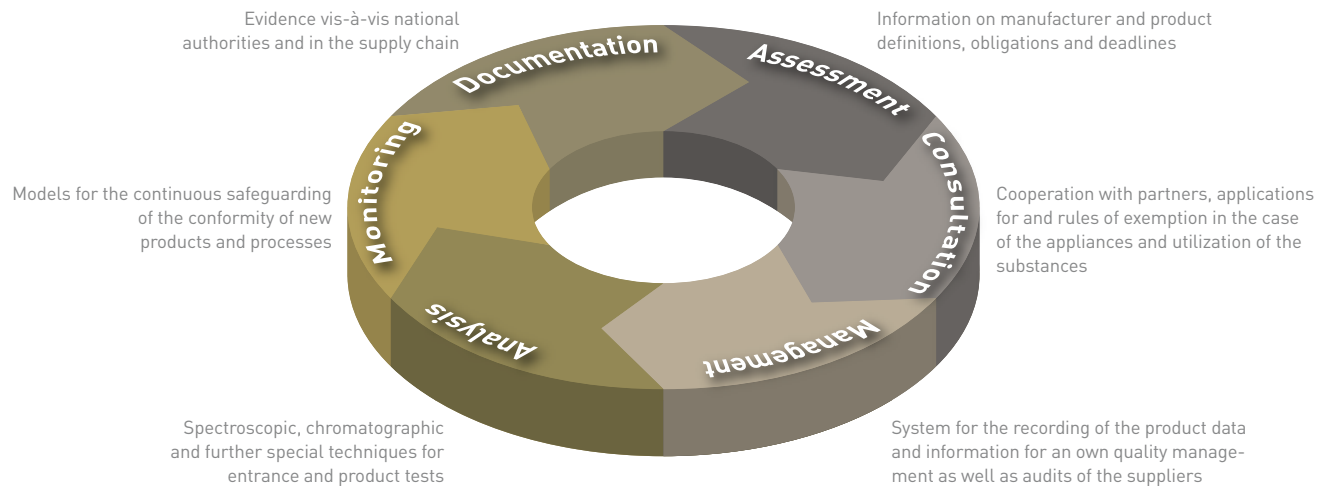


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RoHS-conforming products and safe processes

The prohibition of particular substances in electrical and electronic equipment is neither a guarantee that they will no longer be utilized nor contained in new products. There are many ways in which the prohibited substances can re-enter the market, such as via the recycling of old equipment and materials or through impurities in the raw materials. In light of this, the compliance with the RoHS Directive is to be continually ensured.

In cooperation with Intertek, Krug und Petersen offers services and consultation for the fulfillment of the obligations in Germany and in all other countries of the EU.



RoHS-conformity Although the compliance with the substance ban does not prescribe labeling of any kind on the products or components, the obligated manufacturer or merchant must nonetheless demonstrate RoHS-conformity. In line with his obligation for due diligence, he must request descriptions of the materials, components and units from his suppliers, and make these available in form of technical documentation. This also necessitates physical-chemical tests.

Worldwide substance bans

The European Directive on the Restriction of Hazardous Substances RoHS (2002/95/EC) stands in the context of the European environmental protection policy. Additional provisions and directives, including, for example, WEEE (Waste Electrical and Electronic Equipment), obligate manufacturers and importers of electrical and electronic equipment worldwide to environmental protection and to the protection of the health of the individual. Existing uniform directives for suppliers and industrial standards which regard substance restrictions and manufacturing processes are not affected. These standards, set by the industry itself, must be permanently met, but it would be sensible to combine them with a RoHS management system.

In the past, the six named substances had many uses – as soldering metals, in corrosion prevention and surface coating, or as flame retardants. To replace them represents a difficult task for the businesses which involves nearly all areas, from purchase to development, to production, to data recording all the way to distribution.

Businesses worldwide are faced with this task. In North America, Australia, South Korea, China (incl. Taiwan), identical or similar standards for substance restrictions have been established. Additional countries will follow suit. Differences are also given in the case of the type of the regulated substances, concentration limits, areas of application and deadlines of the entry into force.



RoHS analyses and certification Intertek analyzes materials as to the presence of the substances prohibited by the RoHS Directive through various techniques: XRF and RFA screening, wet chemical analysis, ICP, OES, UV-vis, GCMS, for the verification obligations through tests, inspections and materials analyses.

