



HP's Compliance with Restriction of Hazardous Substances (RoHS) Directives (rev 3/8/2010)

HP is committed to compliance with all applicable laws and regulations, including the upcoming material restriction requirements of the European Union RoHS revision, otherwise known as RoHS 2 and China's Management Methods for Controlling Pollution by Electronic Information Products, otherwise known as China RoHS Phase II.

HP believes that legislation, like the EU RoHS Directive, plays an important role in promoting industry-wide transition to restrict potentially hazardous substances. In general, the restriction of any substance should take into account the following key items:

- Global harmonization of the legislation content and implementation requirements
- Substance risk assessment, including a clear understanding of the environmental impacts of alternative substances
- Clear identification of what substances (vs. broad classes or categories) are to be restricted
- Clear identification of when alternative technologies are proven and readily available
- Appropriate lead time to allow the industry to transition
- Substances that are not used or found in final products should not be included in the restrictions
- Material application exemptions should be allowed for the use of restricted substances in applications where current substitution is not technically feasible

HP fully supports the inclusion of the four substances identified by the Commission in its December 3rd, 2008 proposal for a revision of the RoHS Directive, specifically:

- Hexabromocyclododecane (HBCDD)
- Bis (2-ethylhexyl) phthalate (DEHP)
- Butyl benzyl phthalate (BBP)

- Dibutylphthalate (DBP)

HP believes other substances should be included in future RoHS legislation. This includes the restriction of polyvinyl chloride (PVC) and brominated flame retardants (BFRs) from electrical and electronic products (EEE). HP believes PVC and BFRs should be the focus for the restriction of chlorine (Cl) and bromine (Br) from electrical and electronic products, where technically feasible. HP's reasons for focusing on PVC and BFRs are:

- PVC and BFRs cover 99% of the uses for Cl and Br in electronics;
- Given the high percentage usage, these substances have the highest impact;
- Restriction of these substances where technically feasible would substantially accomplish the goal to eliminate Cl and Br from electronic products

By July 2007, all PVC and BFRs were restricted^[1] from the external case plastics in HP branded products. HP will complete the phase out^[2] of BFR and PVC in newly introduced personal computing products in 2011. Unfortunately, it is not practical in the timeframe of the current RoHS revision for all of the many types of products (HP and non-HP) in the scope of RoHS to make such material transitions. However HP believes restriction under RoHS may be possible in 2015, provided that some critical issues can be overcome or addressed by specific exemptions, including:

- For some specific applications technical issues still exist:
 - Electrical performance issues above 1 GHz in Halogen-free printed circuit boards
 - Dielectric loss
 - Unpredictability of technical performance
 - Safety issues in high temperatures areas
- Availability issues for environmentally-preferable alternatives
- Transition to new substances for high performance products with long life-cycles
- Ability to maintain high recycled content as substances are restricted.

HP is taking a proactive approach to evaluating materials in its products to assess environmental, health or safety risks. HP may restrict substances because of customer or legal requirements, or because HP believes it is appropriate based on a precautionary approach. HP strives to replace legally permitted materials when scientific data have established a potential health or environmental risk and lower risk, commercially viable alternatives are available. At HP the evaluation of alternative materials is a continuous process.

One of HP's voluntary goals is to remove all mercury – a potentially hazardous substance commonly found in notebook computer screens – from its notebook PCs by the end of 2010.

HP also has an internal voluntary goal to apply the EU RoHS 2 substance and exemption requirements outside the EU (and EFTA) on a worldwide basis within 6 months of each of the EU's various legal compliance dates for virtually all HP branded products in the scope of EU RoHS 2, except where it is widely recognized that there is no technically feasible alternative (as indicated by an exemption under the EU RoHS Directive).

In early 2003, a company-wide RoHS team was formed to manage all aspects of HP's global response to all the RoHS legislations around the world. HP's initiative to address the RoHS legislations is part of the company's Design for Environment program, which includes using materials more efficiently, finding alternatives for designated materials, designing for energy efficiency, and designing products that can be easily recycled.

HP has met (see Compliance Status below) the requirements of the several RoHS legislations currently in effect. We have also met our internal goal of eliminating or reducing the current RoHS substances to the EU-specified levels for virtually all HP branded products in the scope of EU RoHS 1 worldwide, except where it is widely recognized that there is no technically feasible alternative (as indicated by an exemption under the EU RoHS Directive).

HP continues to plan for further "RoHS like" legislation in other jurisdictions and will meet any additional requirements that arise.

More detailed information can be found at www.hp.com/environment:

[2008 Global Citizenship Report](#)

[Sustainable Design](#)

[Materials](#)

[General Specifications for the Environment](#)

[J-MOSS/JIS-C-0950 Material Declarations](#)

[China RoHS](#) – *English version*

[China RoHS](#) – *Chinese version*

[Korean RoHS Declarations](#)

HP's Compliance Status to EXISTING RoHS Legislation:

EU RoHS Directive (2002/95/EC):

- As of January 1, 2010 all HP products put on the market in the EU and EFTA Member States do not use Exemption 22, "Lead as impurity in RIG

(rare earth iron garnet) Faraday rotators used for fiber optic communications systems.”

- As of July 1, 2006 all HP products in the scope of EU RoHS 1 put on the market into the EU and EFTA Member States are in compliance with the EU RoHS requirements.

Turkey RoHS:

- As of March 30, 2009 HP meets the Turkish legislation “Regulation on the Restriction of the use of Certain Hazardous Substance in Electrical and Electronic Equipment”, otherwise known as Turkey RoHS.

Korea RoHS

- As of January 1, 2008 HP meets the Korean legislation “The Act for Resource Recycling of Electrical/Electronic Products and Automobiles”, otherwise known as Korean RoHS.

China RoHS

- As of March 1, 2007 HP meets the Phase I labeling requirements of China’s, “Management Methods for Controlling Pollution by Electronic Information Products,” otherwise known as China RoHS.

California RoHS (Senate Bill 20)

- As of January 1, 2007 HP meets California’s, “Electronic Waste Recycling Act of 2003 (Senate Bill 20) substance restrictions,” otherwise known as California RoHS.

Worldwide

- As of January 1, 2007 HP achieved its internal voluntary goal to meet the then current EU RoHS 1 substance restrictions on a worldwide basis for virtually all HP branded products in scope of EU RoHS 1, except where it is widely recognized that there is no technically feasible alternative (as indicated by an exemption under the EU RoHS Directive).

Japan RoHS or “J-MOSS” (JIS-C-0950)

- As of July 1, 2006 HP meets the requirements of Japan’s labeling legislation that applies to many Hewlett-Packard personal computing products.

Notes:

[1] See section 3.4.2 and 3.26 of HP's General Specification for the Environment

[2] See section 3.15 of HP's General Specification for the Environment

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