HP’s Compliance with Restriction of Hazardous Substances (RoHS) Legislation
(rev13 June 2014)

HP is committed to compliance with all applicable laws and regulations, including any new material restriction requirements that may be adopted under the European Union Recast RoHS Directive, otherwise known as EU RoHS 2, the European Union’s restriction of PAHs in Annex XVII of the EU REACH Regulation and China’s Management Methods for Controlling Pollution by Electronic Information Products, otherwise known as China RoHS 2.

HP believes that legislation, like the EU RoHS Directives, plays an important role in promoting industry-wide transition to restrict substances of concern. 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
- Inclusion of maximum concentration values setting de minimis levels below which the relevant substances may be present

HP fully supports the restriction 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 considered for inclusion 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. In 2013, all of HP’s notebook products and 60% of our desktop computer products were low-halogen.[^2] When technically feasible, we will continue to phase out brominated flame retardants (BFRs), polyvinyl chloride (PVC), and phthalates to meet market demands and customer expectations. Unfortunately, it was not practical for HP or the industry as a whole to make these material transitions in all the many types of products at this time. However HP believes restriction under RoHS legislation may be possible in 2016, 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 temperature 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 and technically viable alternatives are available. At HP the evaluation of alternative materials is a continuous process.
Our continued internal voluntary goal is 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 new 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). This was achieved for 2013.

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 continues to plan for further “RoHS like” legislation in other jurisdictions and will meet any additional requirements that arise. HP complies with the requirements of the all RoHS legislations currently in effect (including those specifically listed under Compliance Status below). HP’s Compliance Verification is based on our risk analysis of restricted substances entering the supply chain and includes technical documentation outlined in the European Union’s EN 50581:2012 standard.

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

Living Progress Report
Design for environment
Compliance Verification
General Specifications for the Environment
Eco Declarations

**HP’s Compliance Status to EXISTING RoHS Legislation:**

**India**

- HP products\(^{[3]}\) including print cartridges comply with the material restrictions of India’s legislation “E-waste (Management and Handling) Rules, 2011”, otherwise known as India RoHS which came into effect on May 1, 2014.

**European Union**

- HP products in-scope and put on the market in the EU and EFTA Member States comply with the changes to exemptions required as of January 1, 2013 in Annex III of EU RoHS Directive (2011/65/EU) of 8 June 2011 and earlier Commission Decisions withdrawing exemptions.
Korea


Vietnam


Serbia

- HP products\(^3\) comply with Serbia’s WEEE and RoHS “Regulations on the List of Electrical and Electronic Products, Measures Banning and Restricting the Recovery of Electrical and Electronic Equipment Containing Hazardous Materials, and the Methods and Procedures for Managing Waste from Electrical and Electronic Products” that entered into force on January 4, 2011. RoHS restrictions apply to equipment placed on the market on or after July 1, 2011.

Ukraine

- HP products\(^3\) comply with the substance restrictions in Ukraine’s “Technical Regulation on restrictions as to the use of some dangerous substances in electric and electronic devices”, otherwise known as Ukraine RoHS which came into effect on 1 January 2011.

New Jersey

- HP products\(^3\) comply with New Jersey’s “Electronic Waste Recycling Act” (Senate Bill 2144), otherwise known as New Jersey RoHS which came into effect on 1 January 2011.

Turkey

- HP products\(^3\) comply with Turkey’s “Regulation on the Restriction of the use of Certain Hazardous Substance in Electrical and Electronic Equipment”, otherwise known as Turkey RoHS which came into effect on March 30, 2009.

China

- HP products\(^3\) comply with China’s, “Management Methods for Controlling Pollution by Electronic Information Products”, otherwise known as China RoHS which came into effect on March 1, 2007.
California


Worldwide

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

Japan

- HP products[^3] comply with the labeling requirements set out in Japan’s “The Marking of Presence of the Specific Chemical Substances for Electrical and Electronic Equipment” (JIS-C-0950), otherwise known as J-MOSS which came into effect on July 1, 2006. You can find HP’s J-MOSS declarations at - [www.hp.com/go/jisc0950](http://www.hp.com/go/jisc0950)

Notes:


[^2] External components such as keyboards, mice, cables, and cords are not low-halogen.

[^3] HP products that are both in scope and put on the market in the given jurisdiction.

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