Hazardous Substances Directive 2011/65/EU


This Directive covers the Restriction of Hazardous Substances (RoHS) compliance covering the use of certain hazardous materials in electrical equipment designed for use with a voltage rating not exceeding 1000 Vac and 1500 Vdc. The intent of this Directive is to discourage electrical/electronic equipment use of heavy metals, to combat environmental pollution, and to protect human health.

The original Directive (2002/95/EC) took effect on 1 July 2006. It was focused on mercury, cadmium, lead, chromium VI (hexavalent), PBB (poly-brominated biphenyls), and PBDE (poly-brominated diphenyl ether). The latest change, 2015/863/EU, taking effect on 22 July 2019, will add 4 phthalate plasticizers (DEHP, BPP, DBP, and DIBP) to the list of restricted chemicals.

Decision 2005/618/EC allows a maximum concentration of 0.1% by weight in homogeneous materials for lead, mercury, hexavalent chromium, poly-brominated biphenyls (PBB) and poly-brominated diphenyl ethers (PBDE), and 0.01% by weight in homogeneous materials for cadmium. Homogeneous material means a material that cannot be mechanically disjointed into different materials. There are many exemptions to the Directive listed in Annex III and IV — e.g., mercury is allowed in fluorescent and other discharge lamps to promote ignition.