

Hazardous Substances in Electrical and Electronic Equipment

Test item	Test method	Sample weight (g)	Quantitation limit	Charge (JPY)
Cadmium	Atomic absorption spectrometry	25	0.5 ppm	30,000
Lead	Atomic absorption spectrometry		5 ppm	
Chromium	Diphenylcarbazide spectrophotometric method		2 ppm	
	Inductively coupled plasma atomic emission spectrometry			
Mercury	Cold vapor atomic absorption spectrometry	20	0.01ppm	15,000
	Heat-vaporization Atomic absorption spectrometry			
Bromine	Gas chromatography	20	0.01ppm	15,000
Polybrominated biphenyls (PBBs)	Gas chromatography-mass spectrometry	20	0.01%	90,000
Polybrominated diphenyl ethers (PBDEs)	Gas chromatography-mass spectrometry		0.01%	
Polybrominated biphenyls (PBBs)	Gas chromatography-mass spectrometry	20	0.001% (Low quantitation limit)	100,000
Polybrominated diphenyl ethers (PBDEs)	Gas chromatography-mass spectrometry		0.001% (Low quantitation limit)	

Note 1) The above test methods for cadmium, lead, total chromium, and bromine may be changed due to constituents of the sample.

Note 2) PBBs and PBDEs are reported as the sums of individual congeners.

[Waste Electrical and Electronic Equipment Directive (WEEE Directive) and Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations (RoHS Regulations)]
 The WEEE and RoHS Directives were adopted in February 2003 by European Union.
 The RoHS Directive bans the placing on the EU market from 1 July 2006 of new electrical and electronic equipment containing more than agreed levels of lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) flame retardants.

Restricted substance	Restricted limit
Lead	0.10%
Mercury	0.10%
Cadmium	0.01%
Hexavalent chromium	0.10%
Polybrominated biphenyl (PBB)	0.10%
Polybrominated diphenyl ether (PBDE)	0.10%

Note) Deca-BDE was exempted from the RoHS Directive on 15 October 2005. This decision was taken by the European Commission on the basis of the conclusions of the Deca-BDE Risk Assessments on environmental and human health.