HQTS-QAI

RoHS

Overview?

RoHS is the acronym for Restriction of Hazardous Substances. RoHS, also known as Directive 2002/95/EC, originated in the European Union and restricts the use of specific hazardous materials found in electrical and electronic products. All applicable products in the EU market after July 1, 2006 must pass RoHS compliance.

What are the restricted materials mandated under RoHS?

The substances banned under RoHS are lead (Pb), mercury (Hg), cadmium (Cd), hexavalent chromium (CrVI), polybrominated biphenyls (PBB), polybrominated diphenyl ethers (PBDE), and four different phthalates (DEHP, BBP, BBP, DIBP).

Why is RoHS compliance important?

The restricted materials are hazardous to the environment and pollute landfills, and are dangerous in terms of occupational exposure during manufacturing and recycling.

How are products tested for RoHS compliance?

Portable RoHS analyzers, also known as X-ray fluorescence or XRF metal analyzers, are used for screening and verification of RoHS compliance.

Which companies are affected by the RoHS Directive?

Any business that sells applicable electronic products, sub-assemblies or components directly to EU countries, or sells to resellers, distributors or integrators that in turn sell products to EU countries, is impacted if they utilize any of the restricted materials.

What about RoHS 2?

The proposed changes to the original RoHS Directive in RoHS2 are minor. No additional substances have been added to the six currently restricted. Inclusion of RoHS categories 8 (medical devices) and 9 (control and monitoring instruments) products in RoHS is now proposed, with the proposed dates for inclusion being 2016 or later.

What is WEEE?

WEEE is the acronym for Waste from Electrical and Electronic Equipment. WEEE, also known as Directive 2002/96/EC, mandates the treatment, recovery and recycling of electric and electronic equipment. All applicable products in the EU market after August 13, 2006 must pass WEEE compliance and carry the "Wheelie Bin" sticker. For the complete directive, see Directive 2002/96/EC of the European Parliament.

How are RoHS and WEE related?

WEEE compliance aims to encourage the design of electronic products with environmentally-safe recycling and recovery in mind. RoHS compliance dovetails into WEEE by reducing the amount of hazardous chemicals used in electronic manufacture. Put another way, RoHS regulates the hazardous substances used in electrical and electronic equipment, while WEEE regulates the disposal of this same equipment.

Guidelines

Any business that sells applicable electrical or electronic products, sub-assemblies or components directly to RoHS countries, or sells to resellers, distributors or integrators that in turn sell products to these countries, is impacted if they utilize any of the restricted materials.

The RoHS Directive currently applies to products in Categories 1 through 7. Categories 8 and 9 are exempted from compliance.

RoHS specifies maximum levels for the following restricted materials:

- Lead (Pb): < 1000 ppm
- Mercury (Hg): < 100 ppm
- Cadmium (Cd): < 100 ppm
- Hexavalent Chromium: (Cr VI) < 1000 ppm
- Polybrominated Biphenyls (PBB): < 1000 ppm
- Polybrominated Diphenyl Ethers (PBDE): < 1000 ppm
- Bis(2-Ethylhexyl) phthalate (DEHP): < 1000 ppm
- Benzyl butyl phthalate (BBP): < 1000 ppm
- Dibutyl phthalate (DBP): < 1000 ppm
- Diisobutyl phthalate (DIBP): < 1000 ppm