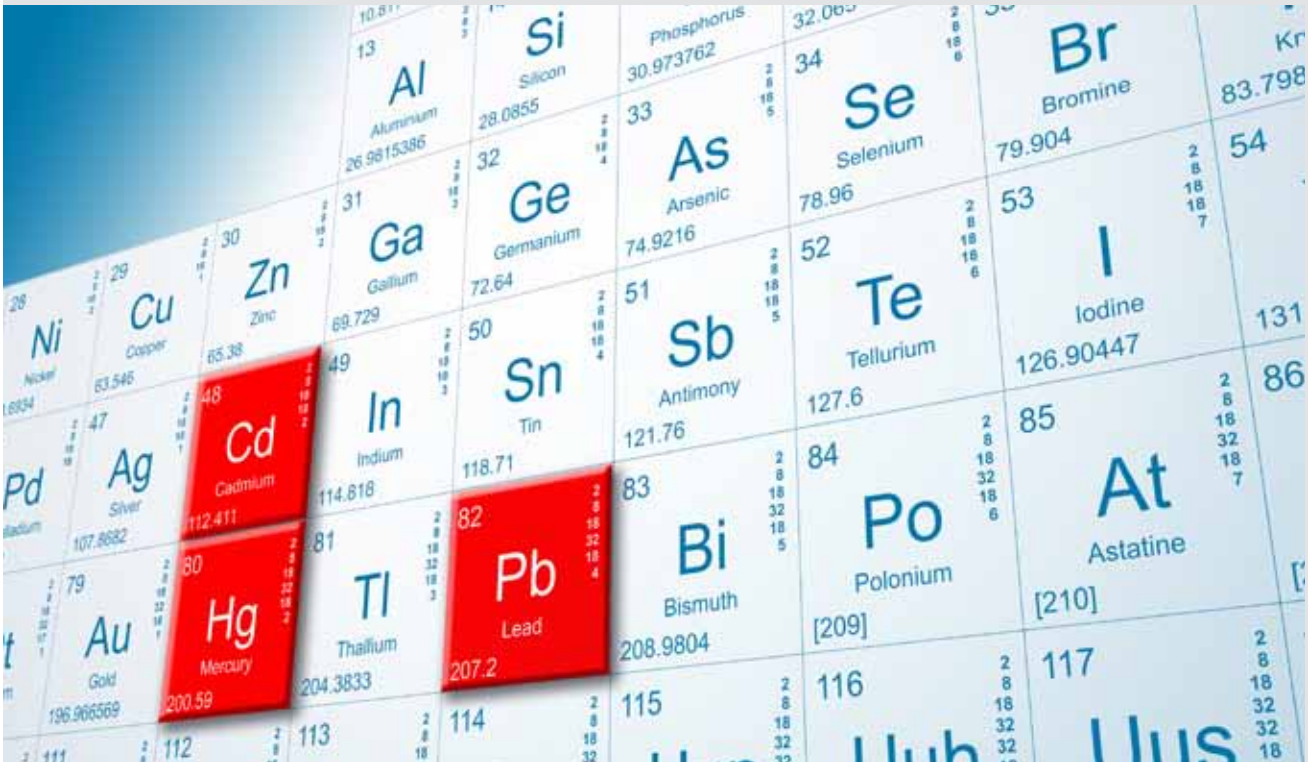
IECEE REPORTING SERVICE FOR HAZARDOUS SUBSTANCES: HELPING YOU PROTECT CORPORATE REPUTATION AND THE BOTTOM LINE

SYSTEM OF CONFORMITY ASSESSMENT SCHEMES FOR ELECTROTECHNICAL EQUIPMENT AND COMPONENTS (IECEE)



TAKING THE HAZARD OUT THROUGH HAZARDOUS SUBSTANCES TESTING

Severe regulations that can leave doubts

The use of hazardous substances is increasingly regulated around the world[1].

In electrical and electronic equipment six substances are particularly severely controlled:

Lead (Pb)

Lead is commonly used in the electrical and electronics industry in solder, lead-acid batteries, electronic components, cable sheathing and in the glass of cathode-ray tubes.

Mercury (Hg)

Mercury is widely used metals in the production of electrical and electronic appliances and is concentrated in batteries, switches and thermostats, and fluorescent lamps.

Cadmium (Cd)

Cadmium is used in electronic equipment, car batteries, and pigments.

Hexavalent Chromium (Cr^{6+})

While some forms of chromium are non-toxic, Chromium VI can produce toxic effects.

Polybromobiphenyl (PBB)

These are flame retardants found in electronic and electrical appliances. They have been found in indoor dust and air through evaporation from plastics.

Polybromodiphenyl Ether (PBDE)

These are also flame retardants found in electronic and electrical appliances. Combustion of printed wiring boards release toxic emissions.

All of them might be used in electric and electronic devices and components or their manufacturing.

Categories of products that may be impacted by regulations:

- Large household appliances: refrigerators, washers, stoves, air conditioners

[1] Europe: RoHS and REACH
China: Electronic Information Product Pollution Prevention & Management Act
USA: California Electronic Waste Recycling Act

- Small household appliances: vacuum cleaners, hair dryers, coffee makers, irons
- Computing & communications equipment: computers, printers, copiers, phones
- Consumer electronics: TVs, DVD players, stereos, video cameras
- Lighting: lamps, lighting fixtures, light bulbs
- Power tools: drills, saws, nail guns, sprayers, lathes, trimmers, blowers
- Toys and sports equipment: videogames, electric trains, treadmills
- Automatic dispensers: vending machines, ATM machines

In some countries/regions, the use of these substances at all stages, from production to disposal, is limited to 0.1 % by weight because of their potentially serious negative impact on human health and the environment. Even separate collection and recycling can be harmful to human health and the environment.

While regulations exist, limiting the use of these chemicals, there are risks since some products are exempt and others may be with borderline values, depending on components used.

The impact of non-compliance

The fact is, whether you inadvertently or knowingly fail to comply with regulations, the impact on corporate reputation and your bottom line can be equally severe. Consequences can include massive product recalls, even if the hazardous substances are only present in some of the components or materials from which the product was manufactured. Depending on markets, the liability suits and/or resulting claims for damages can be substantial.

Recycling and recovery of these products is increasingly mandatory and results in added cost.

As a responsible manufacturer, you want to continue to ensure that your suppliers respect your policies, allowing you to avoid costly surprises. That's why you want to make certain that you know which of your products (or your suppliers' products) contain hazardous substances and in what quantities. With IECEE RSHS (Reporting Service for Hazardous Substances) this is now possible.

IECEE RSHS

IECEE RSHS (Reporting Service for Hazardous Substances) can give you the tools that allow you to demonstrate your compliance with regulations in key markets; providing you with the means to prove that you have respected the given limits while allowing you to efficiently increase the cooperation with your suppliers.

Clear results for full compliance

IECEE RSHS can help you to clearly determine the presence and exact content of hazardous substances in the materials and components that are used to build your products. It facilitates your compliance efforts to the regulations in all markets into which you do business.

This new one-stop resource helps you to eliminate duplicate testing, and both under- and over-compliance, which in turn saves you money and time. By providing you with a tailored STR (Statement of Test Results) you have, for the first time, a clear cut tool that helps you control potential financial and liability risks.

What does IECEE RSHS cover?

IECEE RSHS covers most components and materials used in the manufacturing of electric and electronic products. Those include polymers, metals or electronics in the form of electronic components, electronic assemblies or parts that are easily removed, so-called FRUs (Field Replaceable Units). It does NOT cover final products.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Who conducts the tests?

All tests are conducted by an IECEE HS (Hazardous Substances) laboratory in accordance with IEC 62321, the International Standard that provides the testing criteria for six regulated substances (lead, mercury, cadmium, hexavalent chromium polybrominated biphenyls, polybrominated diphenyl ethers).

All testing laboratories are competent in the testing and measurement of hazardous substances to IEC 62321 and familiar with the underlying work by IEC TC (Technical Committee) 111: Environmental standardization for electrical and electronic products and systems. Such testing laboratories are evaluated on an on going basis to assess their methodology and relevant measurement uncertainties.

What do you get?

IECEE RSHS provides you with an STR that includes:

- The name of the IECEE National Certification Body that has issued the report
- Manufacturer's/Trade name
- Test report number
- Product/Component/Material/Model number
- IEC Standard used
- Issued date of the test report
- A detailed description of the sample, including photograph(s).
- Test methods used (different depending on each hazardous substance)

- The STR is published by the NCB (National Certification Body) and can be consulted online: www. Iecee.org

  The details of all values measured are not included in the STR but are available online exclusively to subscribing customers.

  The STR for hazardous substances in materials and components used in electrical and electronic equipment is widely recognized by authorities and certification bodies.

Who issues IECEE STRs?
STRs are delivered by approved IECEE NCB.
Full list available on: members.iecee.org

Want to know more about IECEE HSTS?

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ABOUT IECEE AND THE IEC

About IECEE:
IECEE is a worldwide multilateral certification system that is based on standards prepared by the IEC (International Electrotechnical Commission).

The system includes certification for electrical and electronic (electrotechnical) products under the CB Scheme, as well as an exclusive quality programme for photovoltaic products and systems, the PV Quality Mark and the PV Quality Seal.

The IECEE system was put in place to facilitate international trade in electrotechnical equipment, and components for use in homes, offices, workshops, healthcare facilities and similar locations.

About the IEC:
The IEC publishes International Standards and supports all forms of Conformity Assessment for the millions of devices that use, produce or store electricity or contain electronics.

- Over **10 000 experts** in **174 Technical Committees** with more than **1 000 Working Groups**
- Over **6 000 International Standards in catalogue** today
- Over **500 000 Conformity Assessment Certificates** established

Founded in 1906 in London
162 Members and Affiliates
Offices in: Switzerland, Australia, Brazil, Singapore, USA

IEC International Standards and Conformity Assessment Systems cover:
Power generation, transmission, distribution, including all renewable energy sources; batteries, home appliances, office and medical equipment, all public and private transportation, semiconductors, fibre optics, nanotechnology, multimedia, information technology, and more. They also cover safety, performance and the environment. ■

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