

Policy on hazardous substances

The legislative basis for iC-Haus's policy on hazardous substances is directive 2002/95/EC of the European Parliament and of the Council on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS). This directive was passed by the European Parliament and Council on 27 January 2003. Other statutory documents upon which our policy is based are the European directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE) and several national German directives, such as the *Gefahrstoffverordnung* or GefStoffV on toxic substances from 15 November 1999 and the *Chemikalien-Verbotsverordnung* or ChemVerbotsV banning certain chemicals.

The aim of these directives is to minimize the risk to humans and the environment entailed in the production, use and disposal of electrical and electronic products. In this respect the use of cadmium and certain halogenated flame retardants, for example, and of other substances considered environmentally unsound will be banned as from 1 July 2006.

In keeping with these directives iC-Haus will in future only develop and supply products which are devoid of these hazardous substances. Existing products will be tested to determine if they contain any residual hazardous substances and, if so, be replaced in due course by new, "clean" versions or removed from our range of products. The entire conversion process is governed by legislative directives and the tried-and-tested technical standards of the electrical and electronics market.

In close collaboration with its suppliers iC-Haus will manufacture products which mirror the latest findings of international scientific research with regard to their eco-friendliness. A guarantee that we shall be able to match individual customer standards in this respect cannot, however, be given. In due course we will publish our product information in the International Material Data System (IMDS). After this date substances which are environmentally suspect – as stipulated in the relevant legal documents – will no longer be contained in our products.

The composition of an iC is relatively simple. The following summaries of the properties and uses of chemicals now considered hazardous thus clearly demonstrate that iCs are usually devoid of those chemical substances and compounds whose use has either been restricted or completely banned.

Asbestos

Asbestos is a collective term for a specific group of natural silicate minerals with a characteristically fibrous structure which was widely used as friction pads, a sealing agent and for insulation. Germany's *Gefahrstoffverordnung* from 15 November 1999 bans the use and manufacture of asbestos, permitting its safe disposal only.

Cadmium and cadmium products

In most instances cadmium naturally occurs with zinc. Germany's *Chemikalien-Verbotsverordnung* places a heavy restriction and ban on cadmium and its compounds. Cadmium compounds were widely used in accumulators, as pigments and stabilizers, in solders as contact materials, in alloys, as cadmium sulfide (CdS) and cadmium selenium (CdSe) in photoresistors and as mercury cadmium telluride (HgCdTe) in infrared detectors.

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PBB (polybrominated biphenyls) and PBDE (polybrominated diphenyl ethers)

Halogenated plastics (containing chlorine or bromine) are used as flame-proofing agents. They are practically unflammable as the halogen radicals formed during pyrolysis inhibit the burning of oxygen.

Established manufacturers are in a position to replace the epoxy molding compounds commonly used in iCs with alternative raw materials which meet the latest requirements and no longer contain halogenated plastics.

PCB (polychlorinated biphenyls)

PCBs are practically unflammable, dielectric and non-biodegradable. They were most commonly used in heat transfer mediums, transformers, electrical capacitors, hydraulic systems and as plasticizers in paint, sealing materials and plastics (cable insulation). PCBs were banned in Germany and most other countries in the 1980s.

PCN (polychlorinated naphthalenes)

PCNs were primarily used in the manufacture of chipboard, in dyestuffs, as preservatives in cleaning agents and as lubricants.

Azo dyes

Azo dyes are produced synthetically and are used to color fabrics, oils, lubricants, wax, straw, wood and paper. Some of them can release toxic aromatic amines, for example, which are classed as carcinogenic. In Germany the use of azo dyes found to be toxic is forbidden in consumer products.

Organotin compounds and TBN (tributyl tin)

These chemicals are used as fungicides in wood preservatives and as preservatives in water-dilutable paints and coating materials.

The chemicals listed above are not advantageous to iC products in any way and as a rule are not used in their manufacture or have already been banned. The presence of such hazardous substances in our products can thus be safely ruled out.