

Are Greener Electronics possible?

ChemSec publication lists electronics free from toxic brominated flame retardants and PVC

ChemSec’s “Electronics without brominated flame retardants and PVC– a Market Overview” demonstrates that it is technically and economically feasible to replace toxic brominated flame retardants and polyvinyl chloride, PVC, in a wide range of electronic products. The Market Overview lists over 500 products free from these toxics. A transition within industry is possible. Do regulators help or hinder?

INDUSTRY IS MOVING – DO REGULATORS HELP OR HINDER? Greener, more environmentally-friendly electronics are possible! Many companies are already moving in this direction. What do regulators do?

The Market Overview lists over 500 products free from toxic brominated flame retardants and/or PVC.

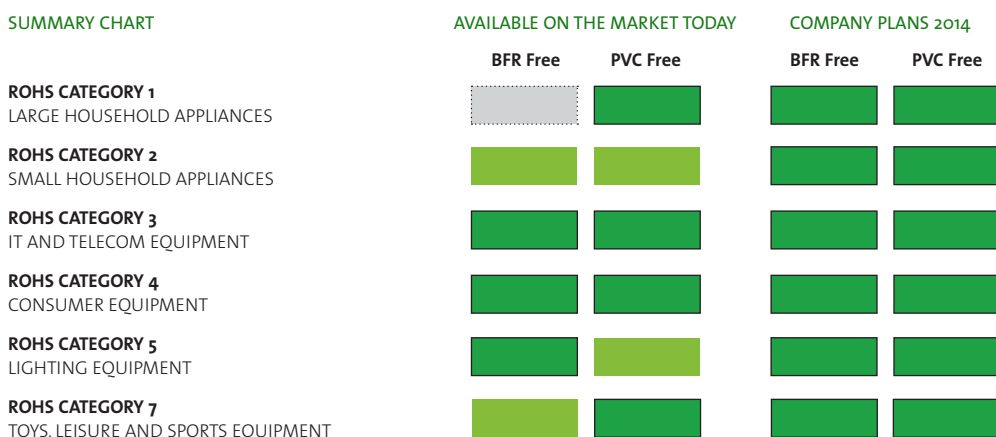
THE RESULTS The Market Overview covers 28 electronic companies; many of them market leaders in their sector.

- 23 of these have at least one product on the market free or almost free from brominated flame retardants.
- 25 of these have at least one product on the market free or almost free from PVC.
- Three out of four companies officially state that by 2014 they will have products totally free from brominated flame retardants and/or PVC on the market.

To stimulate this development, regulators, nationally and globally, have the opportunity, and responsibility, to establish legal frameworks confirming the elimination of replaceable, toxic chemicals used in electronics.

In the European Union, EU legislators have the possibility to confirm sustainable developments like the one reflected in the ChemSec Market Overview, by taking action on brominated flame retardants and PVC:

SUMMARY CHART



- Products free from brominated flame retardants (BFRs) or PVC as defined by industry.
- Products/product almost free from brominated flame retardants/PVC (with some remaining brominated flame retardants or PVC-containing components/parts).
- No information found through this web-based research March/April 2010.

- Legal frameworks like the EU RoHS directive are important vehicles to level the playing field and reward first-movers.
- Complacency rewards the laggards, and reverses the development towards environmentally-friendly electronic products.

The examples provided by the companies and products listed in this Market Overview demonstrate the will, possibility and feasibility of greener electronic products. If industry standard bodies as well as regulatory bodies demonstrate similar foresightedness and courage, and confirm and stimulate this direction, important steps are taken towards ensuring ever-more sustainable, greener, electronics.

“...Acer hopes that influential regulations can help to restrict PVC/BFRs; the EU directive RoHS might be the most important one.”

WHAT IS THE PROBLEM? Brominated flame retardants and PVC plastic (polyvinyl chloride) have traditionally been widely used in electrical and electronic products. The use of brominated flame retardants and PVC in electronics is highly problematic from both an environmental and a human health perspective.

Brominated flame retardants tend to be particularly likely to bio-accumulate and be persistent. They do not easily break down, but remain in our bodies and the environment for a long time and accumulate in animals and humans. Some of the brominated flame retardants are also toxic.

Both brominated flame retardants and PVC have the potential to transform into some of the most toxic chemicals ever made by humans, dioxins and furans. Dioxins and furans can for example cause cancer, birth defects and neurological damage. Dioxins and furans are formed when products containing brominated flame retardants and PVC are incinerated at insufficiently high temperatures.

Electronic waste is the fastest growing waste stream in the world. Large part of the electronic waste from the European Union is inadequately treated which means that dioxins and furans are formed and cause severe health and environmental effects. Political decisions are needed in order to eliminate the use of brominated flame retardants and PVC in all electronic products.

“Dell’s goal is to eliminate the use of all brominated flame retardant (BFR) chemicals and polyvinyl chloride (PVC) plastics in our products worldwide.”

THE OVERVIEW In the European Union RoHS Directive, electrical and electronic products are divided into ten categories. The Market Overview takes a closer look at six of these categories. It lists products on the market today,

as well as companies that have adopted strategies and policies to replace brominated flame retardants and PVC by 2014. The electronics companies in the IT and communications sector (RoHS categories 3 & 4) are at the forefront in eliminating the use of brominated flame retardants and PVC. Furthermore, the Market Overview also demonstrates that it is technically feasible to remove brominated flame retardants and PVC from other product groups such as coffee machines, electrical toothbrushes and copy-machines.

“At Sony Ericsson[...] we decided to use alternatives for fire protection, mainly because of the risk that BFRs form dioxins in uncontrolled incineration...”

The Market Overview is based on a web-based research of official corporate information from a wide range of electronics companies, as stated on websites, in annual reports, press releases and product sheets publicly available during March and April 2010.

The following companies are listed in the Market Overview

Acer	Apple	ASUS	Cisco
Dell	Electrolux	Fujitsu	HCL
Hitachi	HP	JVC	Lenovo
LG Electronics	Microsoft	Motorola	NEC
Nintendo	Nokia	Panasonic	Philips
Ricoh	Samsung	Sharp	Sony
Sony Ericsson	Toshiba	Very PC	Wipro

The “Electronics without brominated flame retardants and PVC – a Market Overview” is available at:

www.chemsec.org/rohs/market-overview

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