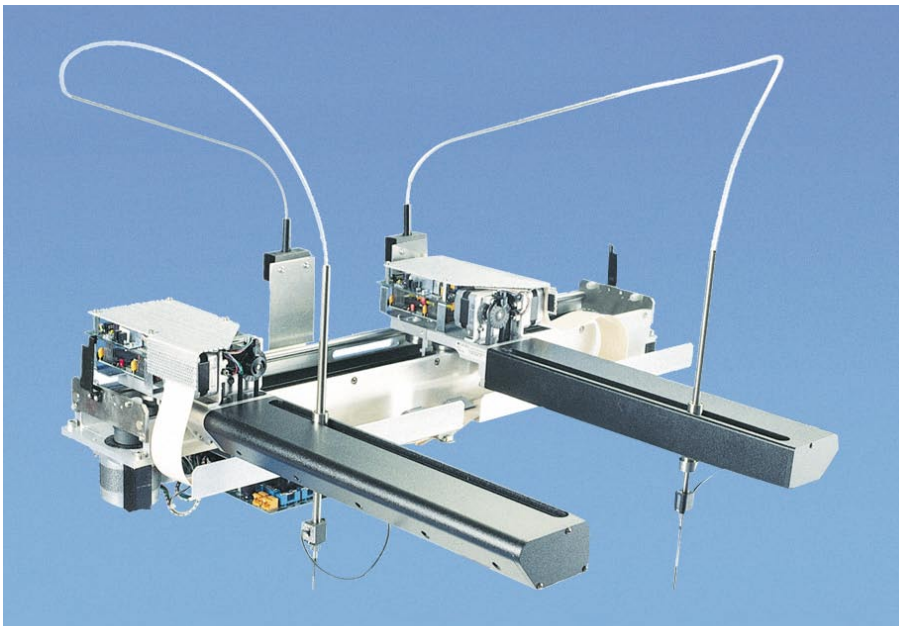


# Complete compliance with Tecan components

The Reduction of Hazardous Substances (RoHS) Directive 2002/95/EC came into effect on July 1st 2006, banning new electrical and electronic equipment containing more than acceptable levels of hazardous materials from being placed on the EU market. This directive has had a major impact on the entire electronics industry and, here at Tecan, we tackled the issue head on!



Gary Barron, the RoHS compliance project leader for Tecan Systems in San Jose, USA, explained how he managed the investigation and compliance assurance of the many thousands of parts used in Tecan's OEM components.

The directive restricts the use of lead, mercury, hexavalent chromium, polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) flame retardants to 1,000 ppm, and cadmium to 100 ppm. These six materials are commonly found in electrical and electronic products but the increasing use of electronic equipment and shorter lifecycles has led to greater quantities being discarded in landfill sites, resulting in potentially harmful accumulations.

"The first thing we did was to map out and evaluate our current status; listing all of our products for which the directive was applicable, breaking each one into its own component parts, and embarking on an enormous program to check out the compliance status of each of these. The result was that approximately half required further investigation by our dedicated engineers, who had to carry out the research and determine what further action was needed."

The sheer volume of work meant the involvement of every department within Tecan Systems – from sales and marketing who were the customers' primary point of contact, to those that worked behind the scenes in purchasing, materials, engineering and quality inspection. This effort took thousands

of man hours over the course of 12 months. As an example of this effort for one product, an individual Cavro® XLP™ pump contains hundreds of individual components and the electronic circuit board within the pump contains as many as 150 different parts, each of which had to be properly analyzed, coded and documented as proof of compliance. "When we started our initial evaluation, most of our electronic part suppliers were already making manufacturing changes and converting their components to meet the directive so we did not have to find new suppliers," said Gary. "However, it was much less straightforward for mechanical parts, which was complicated by the lack of choice in finishes and pretreatments that met the RoHS requirements."

"We made a huge effort to complete the project by July 2006, allowing plenty of time to order all the new product parts, rebuild the products and still give our customers the time they needed to incorporate the upgraded component into their systems. Many Tecan OEM components are used for platforms that require FDA evaluation and certification, so some customers required more time for evaluation to ensure that the RoHS components would not have an impact on their systems."

Steve Levers, president of Tecan Systems, commented: "Thanks to our thorough approach, we are confident that our components meet the RoHS Directive, providing our customers with peace of mind for the foreseeable future."