Restrictions on Hazardous Substances

From August 13 EU Member States are required to have in place the regulatory provisions implementing Directive 2002/95 on the restrictions on the use of certain hazardous substances in electrical and electronic equipment ("RoHS").

Restrictions and Concentration Values

Subsequently, from 1 July 2006, new electrical and electronic equipment (with certain narrow exceptions) put on the European Community market will not be able to contain:

- lead
- mercury
- cadmium
- hexavalent chromium
- polybrominated biphenyls (PBB)
- polybrominated diphenyl ethers (PBDE)

Maximum concentration values for these substances have recently been agreed. The Technical Adaptation Committee ("TAC"), comprising Member States and the European Commission, decided on 20 July that a maximum concentration value of 0.1% by weight in homogeneous materials for lead, mercury, hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE) and of 0.01% weight in homogeneous materials for cadmium will be tolerated.

The TAC defines homogeneous material as 'material that can not be mechanically disjointed into different materials'. The term "homogeneous" is understood as meaning 'of uniform composition throughout'. Examples of homogeneous materials given by the TAC are 'individual types of: plastics, ceramics, glass, metals, alloys, paper, board, resins, coatings'. The term "mechanically disjointed" has been defined by the TAC as meaning that 'materials can be, in principle, separated by mechanical actions such as for example: unscrewing, cutting, crushing, grinding and abrasive processes'. For example, a plastic cover is a homogeneous material if it consists of one type of plastic that is not coated with or has attached to it or inside it any other kinds of materials. In this case the limit values of the RoHS Directive would apply to the plastic. An electric cable that consists of metal wires surrounded by non-metallic insulation materials is an example of a non-homogeneous material because the different materials could be separated by mechanical processes. In this case the limit values of the RoHS Directive would apply to each of the separated materials individually. A semi-conductor package contains many homogeneous materials which include; plastic moulding material, tin-electroplating coatings on the lead frame, the lead frame alloy and gold-bonding wires. The TAC's views are not legally biding but its agreement is aimed to assist in the implementation of RoHS. This does not rule out the possibility that different approaches will be taken by individual Member States so monitoring of implementation in key markets will remain essential.

Exemptions to RoHS

The TAC has also carried out a first review of the results of the recent RoHS Public Consultation on exemptions. A total of 91 responses were received. 56 of the responses relate to exemptions already under examination in the context of a technical study recently commissioned by the European Commission's DG Environment. The TAC members decided to postpone voting on the proposed exemptions until after the results of the technical study are available (in October, when the TAC is next due to meet). A vote is anticipated before the end of 2004. The European Commission has also decided to carry out a full technical study (the details of which will be announced at a later date) into the requirement that medical devices and monitoring and control instruments be included within the scope of the RoHS Directive by 13 February 2005.