



2000s

Compliance with the RoHS Directive

~ Discrete Semiconductor/Others ~

In 2003, the European Union (EU) had promulgated the Directive on Restriction of the Use of Certain Hazardous Substances in Electrical Equipment (RoHS), regulating the use of certain hazardous substances in electronic and electrical equipment, and it came into effect from July 1, 2006. The purpose of the directive was to prevent the inclusion of hazardous substances in structural materials so as not to adversely affect the human body and the environment at recycling or disposing of electronic and electrical equipment. Ten hazardous substances were regulated, including lead, mercury, hexavalent chromium, cadmium and certain organic substances. Although the directive applied to EU member states, it spread beyond Europe.

Most of the world's semiconductor companies followed this directive. Semiconductor material companies had also developed materials and product management systems to comply with these standards. The development of Ag-Sn lead-free solder as a soldering material for semiconductor chip connections was a specific example. In addition, a production control system had been put in place to ensure that materials which did not contain regulated substances as their main component were kept within the criteria of content rate.

Although semiconductor manufacturing equipment was exempted from the restriction when enforcement of the directive began, all companies prepared for repeal of exemption which was scheduled around 2010.

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