

# The Pb-free Minefield

A Guide to Mitigating Risk during the Transition to  
RoHS Compliance

Are you anywhere in the supply chain for manufacturing electronic equipment?

Are you yet to produce a plan for transition to Pb free?

Will increased obsolescence due to RoHS affect you?

Are you concerned about RoHS compliance?

*If you answer YES to any of the above questions, then you need to read this booklet*



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Web sites: [www.cog.org.uk](http://www.cog.org.uk) [www.npl.co.uk/ei](http://www.npl.co.uk/ei)

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*This publication is one of a series of booklets published by the Component Obsolescence Group, all of which are recommended as essential reading for organisations or individuals tasked with obsolescence management. These include:*

***The Obsolescence Minefield  
The Date Coding Minefield  
The Supply Chain Minefield  
The Long Term Storage Minefield  
The Redundant Stock Minefield***

Contact the Component Obsolescence Group for details of the latest available titles.

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[www.npl.co.uk/measurement\\_for\\_innovators](http://www.npl.co.uk/measurement_for_innovators)*



*Original cartoons by Steve Padgham*

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## Introduction

There are two European Union (EU) directives impacting on producers of EEE (Electrical and Electronic Equipment). They are sister directives, but have a different intention;

### RoHS (Restriction of Hazardous Substances) Directive

- This is about banning of specific substances that may end up in the waste stream. In others words it is recognised that some EEE may still go to land fill, so let's ensure it is made from safer materials. This is where the ban on lead and other materials originates.
- The implementation date - **July 2006**.

### WEEE (Waste Electrical and Electronic Equipment) Directive

- This is about the prevention and reduction of waste. In others words trying to prevent EEE going into landfill by increased recovery, re-use and recycling. It imposes labelling requirement on the producer to make this easier.
- Implementation date - **August 2005** (marking of equipment)
- But **Jan 2006** for producer responsibility obligations, & take back by retailers/distributors.<sup>1</sup>

You should also be aware that there are other directives, which may impact in the near future<sup>2</sup>.

**This guide is about the industry change to Pb-Free brought about by the enactment of the RoHS directive.** (Remember though that there are other materials covered by the directive (mercury, cadmium, hexavalent chromium, PBBs and PBDEs and these should not be forgotten.)

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*The content of this guide is based upon external documents and sources, acknowledged in the text wherever possible. In order to give the guide value beyond this however, the experience and understanding of NPL and COG representatives has been drawn on.*

*At the time of writing statements made are correct to the best of COG and NPL's knowledge, however readers should refer to referenced documents before taking any action, and be aware of the rapidly changing legislative and technical landscape in this area.*

*This guide is not intended to provide all the information necessary for introducing Pb-Free, but to lay down the basics and ensure appropriate issues are being considered.*

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