



The
GOLDSMITHS'
Company

ASSAY OFFICE

Cadmium and Lead testing in jewellery:

Lead and Cadmium in jewellery items is an increasing concern due to the harmful effects that these toxic elements can have. In the EU, Cadmium is already restricted by the REACH regulations and Lead will be included from October 2013.

Cadmium and Cadmium Oxide are very toxic and known carcinogens. The fact that Cadmium is used in the jewellery industry as an alloying constituent and in solders means it poses a significant health risk. Therefore, from December 2011, EU REACH Directive 494/2011 came in to effect to restrict Cadmium content in jewellery to 0.01% by weight of metal. This applies to all component parts of precious metal jewellery, fashion jewellery and non-metallic materials. In addition, Cadmium in paints is restricted to 0.1% by weight. The exceptions are jewellery items that are proven to be >50 years old or placed on the market before January 2012.

Lead and its compounds are also toxic at low levels of exposure, so Lead will therefore be subject to EU REACH Directive 836/2012 from October 2013. Lead and its compounds must not be present in jewellery articles in quantities >0.05% by weight. Non-metallic component parts are also included but crystal glass, precious and semi-precious stones are not unless they are treated with Lead compounds.

As the requirements of the REACH Directive only permit very low levels of Lead and Cadmium, Assay Office London can carry out the test for both elements simultaneously using the ICP-OES technique (Inductively Coupled Plasma Optical Emission Spectroscopy) to provide an accurate content result.

Charges for Cd and Pb test - £30 per sample for one or both elements.

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