



Lead Content Testing – How does New Legislation Affect Me?

What is Lead?

Lead is a metal which, even at very low levels of exposure, can be toxic. It is not excreted by the body but instead accumulates so that regular exposure, even to very small quantities, can amount to damaging levels in the body.

Why do we need to test for Lead?

Lead poisoning can negatively affect both intellectual and behavioural development in addition to permanently damaging the nervous system of babies and young children. It is also known to have a variety of adverse health effects on adults including; headaches, anaemia, coma's and even death.

Children are most at risk therefore, products intended for use by children carry a far higher safety risk, further increased by the likelihood of young children sucking or chewing items when migration can occur.

What is the Current Legislation?

Due to negative publicity in the press regarding the addition of lead to certain products, many companies have now adapted their due diligence procedures to include the analysis of products for safe levels of lead, particularly in those intended for use by minors. The most routinely tested products which are intended for use by adults is costume jewellery.

There is currently no specific legislation which applies to Lead Safety Testing of jewellery in the UK, causing confusion for many of our customers. However there are regulations laid down in British Standards for Safety in Toys – BS EN 71-3:1995 – Migration of certain elements, which includes lead and other toxic metals.

There is however legislation which has been passed in some US states and in Europe and we are able to work to those guidelines as required by our customers.

US Legislation

As of the 14th August 2011, all products intended for the use by children may not contain more than 100ppm lead (ASTM Children's Safety Standard). Under the bill the new 100 ppm lead content limit will be prospective, allowing older products already on the shelves to be sold, while products manufactured on 14th August 2011 or later have to meet the lower lead content limit.

The new 100 ppm lead content limit does not apply to inaccessible (internal) parts of children's products and certain component parts of children's electronic devices, like electronic connectors and plugs, including headphone plugs.

The U.S. Consumer Product Safety Commission - CPSC (who instituted the Consumer Product Safety Improvement Act of 2008) changed the regulations on lead content of paint from 0.06% (w/w) to 0.009%, or 90ppm, on 14th August 2009.

The CPSC has denied a request by the Fashion Jewellery Trade Association (FJTA) to exclude crystal and glass beads contained in children's jewellery and other products from the lead content limits established by the Consumer Product Safety Improvement Act of 2008 (CPSIA).

Toy Safety Legislation

Lead is also regulated in toys by the Toy Safety Regulations.

It is stated that the maximum acceptable element migration from toy materials is 90 mg/kg (ISO 8124-3 Safety of Toys Part 3 Migration of certain elements). According to the European Chemicals Agency - Annex XV dossier proposing restrictions on lead and lead compounds in jewellery, "SEAC recommends exempting crystals as well as precious and semiprecious stones from the restriction."

What is the New Legislation?

European Legislation - REACH Directive:

This limits the content of lead in both precious and fashion jewellery but does not apply to other articles, such as key rings which may be easily mouthed or swallowed by children or non-metallic parts such as paints, plastics or lacquers.

The legislation states that lead shall not be used in jewellery articles if the lead concentration is equal to or greater than 0.05% (500ppm) by weight of any part of the jewellery article.

The products covered are; jewellery, fashion jewellery, hair accessories, bracelets, necklaces, rings, pierced jewellery, watches, brooches and cufflinks.

Precious metals are not expected to contain lead or its compounds. Even so, these metals have not been formally exempt from the directive. They can be dealt with by Declarations of Conformity and uniformed due diligence testing rather than regular bulk testing.

The European Legislation review of crystal is currently on hold due to conflict over the inclusion of lead crystal. As lead does not leach from crystal products, it is felt by some people that it does not need to be covered by as tight legislation as other products.

The new legislation has been enforced throughout the EU since the 9th Oct of 2013 and applies to Jewellery items placed on the market thereafter.

Sheffield Analytical Services test to the current REACH Directive.

Sheffield Analytical Services aim to give our customers as much information as we can in relation to current legislation and the testing of lead and other toxic metals that might be found in jewellery but companies are recommended to take their own legal advice on this very important issue.

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