

## LEAD AND ITS COMPOUNDS IN JEWELLERY

### SUMMARY

France proposes a restriction on lead and its compounds in jewellery

**Children may be exposed to lead when they suck or unintentionally ingest jewellery. In general, the adverse health effects of lead are severe and children are more vulnerable than adults to the effects it can have on the central nervous system. In order to protect children from exposure to lead, France proposed that the use of lead and its compounds in the production of jewellery and the placing of such articles on the EU market should be restricted.**

### PROPOSED RESTRICTION

France has prepared a report (a so called Annex XV report) proposing to restrict lead and its compounds in jewellery under the [REACH Regulation](#). With the proposed restriction jewellery which has a lead migration rate greater than 0.09 micrograms per square centimetre per hour ( $\mu\text{g}/\text{cm}^2/\text{hr}$ ) would be prohibited from being produced and/or placed on the EU market.

The proposed restriction would apply to all jewellery, both precious and fashion jewellery, to jewellery intended for adults as well as for children.

The lead migration limit should be considered for each individual part of the jewellery. In order to test the migration rate it is proposed to use the available standard EN 71-3 which is already used for testing the migration of certain elements from toys.

The restriction would apply 6 months after the entry into force of the amendment of REACH Annex XVII.

### THE USE OF LEAD AND ITS COMPOUNDS IN JEWELLERY

Lead and its compounds are used in jewellery for its specific properties and for economical reasons. Lead makes fashion jewellery items heavier and they thus appear to be more “precious”. The use of some lead compounds in coatings gives the jewellery a metallic aspect to the surface and provides shades of colour. Lead is dense and easy to shape and to work with and it allows for welding and soldering. In jewellery, lead is mainly used in copper/lead alloy and in tin/lead alloy (also called “white metal”) with a content of lead of 6% on average. These alloys can be surface treated with rhodium, palladium, gold and silver.

Lead-free alloys are already available on the market for application in fashion jewellery. They usually contain tin, bismuth, copper and silver in replacement of lead.

Lead does not normally migrate from jewellery made of crystal glass or treated stones. Precious jewellery is not expected to contain lead and its compounds.

### REASONS FOR ACTION

The restriction proposal is grounded on several serious incidents during the past few years of children poisoned by lead and/or its compounds resulting from unintended use (ingestion/mouthing) of small articles, such as fashion jewellery. Lead poisoning by unintended use of such articles may be caused by both acute exposure and chronic exposure.

The observed symptoms go from headaches and stomach cramps to death. The reported cases are considered to be an underestimation of the number of children actually poisoned by lead as the symptoms are not specific and lead poisoning might not be detected by the medical personnel.

Lead-containing jewellery is currently placed on the market and thus, is likely to be misused by children. Effects of lead exposure on children are severe and may be irreversible. For now, no safe threshold can be scientifically determined for the effects on their central nervous system.

In light of the situation, and given the fact that it is nearly impossible for consumers to identify jewels which contain lead, the report suggests that the only way to prevent children from being poisoned by these articles is to restrict the exposure to lead from these products.

## CONSEQUENCES OF THE ACTION

If the proposed restriction enters into force, a decrease in lead-content of jewellery on the EU market is foreseen, to the benefit of consumers health but also of producers of lead-free jewels and manufacturers and suppliers of lead-free alloys. Companies manufacturing, importing and selling jewellery will have to make sure that the products do not exceed the migration rate for lead and its compounds.

Other articles (such as key rings, coins etc) that may also be mouthed and accidentally swallowed by children may continue to contain lead. Consumers may also still be exposed to lead in jewels which are already in their households.

## COMMENTS PREFERABLY BY 21 SEPTEMBER

The ECHA Committees for Risk Assessment (RAC) and Socio-Economic Analysis (SEAC) received the restriction report from France on 3 May 2010. The opinion forming of the committees starts with a public consultation in June 2010. In October 2010 the Rapporteurs of RAC and SEAC will discuss in detail the restriction report. Therefore they would appreciate receiving comments by 21 September 2010. The public consultation is however open until 21 December 2010. Thus, there is a possibility to submit comments till then.

The RAC is scheduled to give its final opinion on the proposed restriction by 21 March 2011. SEAC will give its draft opinion at the same time. This draft opinion will be placed on the internet for public consultation. SEAC is scheduled to give its final opinion on the proposed restriction by 21 June 2011. ECHA will send these two opinions to the European Commission which will take the decision as whether to introduce the suggested restriction in Annex XVII of the REACH Regulation.

[Submit comments on the restriction report](#)

## FURTHER INFORMATION

- [Annex XV restriction report](#)
- [Restriction process](#) - Description of the whole restriction process including information on different steps and statuses mentioned in the table.
- [Press release](#): ECHA calls for information on the first two proposals for restriction under REACH