

EUROPEAN DOMESTIC GLASS ANSWERS TO OEKO INSTITUT CLARIFICATION QUESTIONS

1. Because of the high value of lead crystal glass, you assume that the proportion of crystal glass in the waste will be negligible and limited to breakage and items that cannot be repaired. Does this not lead to an accumulation of lead if there is no disposal?

As reported in slide 14 of the ECHA presentation related to the obligations regarding the SCIP database,

Concerning the use of lead substances in the Candidate List, such as lead oxide, in the production of glass objects for electronic components, we invite you to consult the Q&A1218 (*Do I need to notify and communicate information down the supply chain for certain boron substances included in the Candidate List, which are involved in the production of boron glass articles but not present as such in these articles?*) which has been developed when certain boron substances are involved in the production of boron glass articles. Similarly to the case covered by this Q&A, certain lead substances (e.g. lead oxide) included in the Candidate List may be involved in processes leading to the production of articles containing a 'glass' substance. In these processes, the lead substances may be first chemically transformed into a manufactured glass substance. The glass substance is subsequently processed into articles. It remains the responsibility of companies to assess for their specific use of the Candidate List lead substances whether these are completely transformed into glass in the manufacture of the glass substance and are not present as such in the final glass article. If the lead substances (in the Candidate List) as such are not present in the final glass article, there is no obligation to submit a SCIP notification for that article, nor to communicate information down the supply chain under Art. 33 of REACH, because those obligations only apply to articles which contain Candidate List substances.

https://echa.europa.eu/documents/10162/28213971/20201124_scip_it_user_group_presentation_en.pdf/dcdf9a72-b760-24b5-23fc-ee21ffa6e9f7

EDG confirms that there is no accumulation of lead, since the lead oxides are fully transformed into a glass substance.

2. In your application document you mention the limit for acceptance as non-hazardous waste for landfilling with regard to lead (10 mg/kg dry matter). Under what conditions can it be excluded that this limit is exceeded when lead crystal glass is landfilled?

A leaching test was carried out on a crystal branch according to EN 12457-2 and TC13 protocol with sample of glass cullet crushed and sieved to a grain size between 0.5 and 4 mm. It was compared with limit values (10 mg/kg dry matter) set out in Chapter 2.2 "Criteria for landfills for non-hazardous waste in Council Decision 2000/33/EC.

The result is that the Pb concentration is at 3.09 mg/kg.

It is therefore assumed that the limit value could be exceeded if lead crystal glass would be very finely grounded at a lower particle size diameter. This case is totally unlikely since the lead crystal articles under the scope of the RoHS are eventually discarded by consumers, in debris of a larger size.

Reference : Test Report n° 126917, 30 April 2015, Stazione Sperimentale del Vetro.

3. To check the plausibility of your information, it would be helpful if you could provide the confidential references to the research efforts for substitutes mentioned in your application. Furthermore, for reasons of transparency, we ask you to review whether these documents actually require confidentiality status or if a summary of this contents could be made available on a public basis.

Progress has been made. For reason of competitiveness, these research projects are highly confidential and it is not possible for any company to disclose details in terms of either process or composition.

4. Your application documents suggest that the further search for substitutes may be unsuccessful. Please state whether further research efforts are being made and how the next milestones have been set in this endeavour.

The lead crystal companies are actively involved for many years in research projects to find an alternative which could guarantee the same criteria of quality and excellence and to preserve their know-how.

Certain projects have reached a pilot phase in order to approximate the final conditions for validation towards a shift to crystal (i.e. non lead based composition). This phase is still subject to an iterative process in order to check, determine and correct any bias which could appear in the final process / composition. That iterative process will take some more years.

It is expected that in about 10 years time, about half of the remaining lead crystal companies will have shifted to crystal. That delay depends on the result of research towards high quality crystal production and on the end of life of lead crystal furnace.

Please note that the planned shift does not mean that a substitute will have been found to lead crystal glass, but that companies will abandon lead crystal glass for high quality crystal glass whose production process determination is still ongoing.