CLER (Council for LAB/LAS Environmental Research) Document on: Response to

Scientific Committee on Health, Environmental and Emerging Risks (SCHEER) Preliminary Opinion on the Potential for anaerobic biodegradability in marine and freshwater of Linear Alkylbenzene Sulphonates (LAS)

May 25, 2020

Responses of the SCHEER WG. June 5, 2020 - adopted on 18 June by the plenary members

The CLER document reports a series of detailed comments on various parts of the SCHEER Opinion in order to support three major Overall conclusions:

1) Industry, now represented by CLER, was requested to perform a higher tier anaerobic biodegradation study such as the OECD 308 TG (SCHER 2008). The University of Cadiz conducted the study, sponsored by CLER, and provided the results to the SCHEER.

2) Despite its limitations, the OECD 308 study shows that LAS has the potential for anaerobic biodegradation. Other literature studies support this view.

3) This new information does not indicate a potential risk to the environment for LAS and CLER members request that any statement suggesting potential risk be removed from the SCHEER Opinion.

After a careful consideration of the CLER document, the SCHEER decided to focus on the three main conclusions. It is the opinion of the SCHEER that more in depth answers to the detailed comments of the CLER Document are not required.

Conclusion 1.

The SCHEER agrees with this statement. Indeed, the SCHEER mandate was to evaluate the potential for anaerobic biodegradation of LAS, in both marine and freshwater environment, mainly on the basis of the study of the University of Cadiz, although recent scientific evidence should also be taken into account.
Therefore, the CLER statements, as well as the SCHEER Opinion, are mainly based on the Cadiz report.

Conclusion 2.

This conclusion is surprising and is in disagreement with the conclusions of the Cadiz report itself. Indeed the Cadiz Report concludes (page 27):

- Anaerobic degradation of LAS in anoxic marine sediments is feasible but strongly dependent on sediment properties
- Anaerobic degradation of LAS in non-polluted freshwater sediments is negligible.

In spite of some weaknesses, the SCHEER considers the results of the Cadiz report to be reliable and the SCHEER Opinion reaches the same conclusions. In synthesis, the SCHEER concludes:

- in marine waters anaerobic degradation of LAS may occur only under particular conditions (e.g.: sandy sediment and low organic carbon content);
- the potential for anaerobic degradation of LAS is negligible in freshwater.

These are almost the identical conclusions of the Cadiz study, while the statement of the CLER document is in contradiction with the Cadiz study.
The SCHEER also considered additional recent literature without finding any evidence sufficient to contradict these conclusions.
The same conclusion appears to be reached and contained in the CLER document, which states (see bullet 6 of the Supporting Statements):

"CLER notes that additional published studies provide evidence of LAS anaerobic biodegradation in marine sediments, including sewage-impacted sediments."

This agrees with the conclusions of the SCHEER Opinion, as well as with those of the Cadiz study that accept the possibility of anaerobic degradation in the marine environment, only under specific conditions.

Conclusion 3.

Assessing the risk of LAS was not in the mandate for the SCHEER.
Indeed, in the SCHEER Opinion, the risk of LAS is not mentioned. In the Summary, as well as in the Opinion and Conclusions, the SCHEER states that LAS may represent "a problem of relevant environmental concern". This is a general statement, not a risk characterisation.