

## Report from the Workshop on the validity of the use of the concept of 'rapid removal' on 8<sup>th</sup> February 2012

The Chair opened the meeting and welcomed the participants to the workshop. The Chairman stated that the subject of the workshop was the validity of the concept of 'rapid removal' to which reference had been introduced (in terms of terminology) into the ECHA Guidance on the application of the CLP Criteria. However, the scientific rationale on which the concept is based was already present in the GHS and in the CLP Regulation itself (although the term 'rapid removal' was not used in either; see para 4.1.2.10.1, of Annex I to the CLP Regulation (EC) No 1272/2008). It was stressed that the key aim of the workshop was to discuss the applicability of the concept for metals. The Chairman pointed out that there are a few fundamental questions which need to be addressed: Firstly, within the hazard identification context of the CLP criteria, can 'rapid removal' be considered as equivalent to degradability for metals at all and secondly, if the answer to the first question is yes, what kind of information needs to be provided to evaluate whether certain trigger values (still to be decided) would be exceeded or not. In summary the chairman invited the participants to use this occasion to put all available scientific information on the concept of 'rapid removal' on the table and engage in a fruitful discussion.

In the first presentation of the morning session it was explained that the concept of 'rapid removal' was introduced into the guidance as a more accurate description in comparison to 'partitioning' (the term used in the GHS) in order to avoid including partitioning to the sediment and binding to the sediment in the context of metals classification. In the discussion an industry expert clarified that the concept of 'rapid removal' was already introduced in the previous version of the *Guidance on the Application of the CLP Criteria* or the so called 'CLP Guidance' [published in 2009], as the GHS contained not only wording on partitioning but also wording on speciation. It was further emphasised that the concept of 'rapid removal' tried to capture both concepts, namely partitioning and change in speciation in the sediment compartment, which is the key concept related to the absence of remobilisation. Further ECHA stressed that participants should not forget that the 2<sup>nd</sup> ATP was already implemented into the CLP Regulation and this workshop discussion should only take the most current 2<sup>nd</sup> ATP criteria for the environmental metal classification into account. A further five presentations were made in the morning session - these can be downloaded on the respective ECHA Webpage.

Following the lunch break the chairman pointed out that in his view the following needed decision in the afternoon session:

- Firstly, agreement on a fundamental principle; whether and which of these 'removal' processes may be taken into account in the context of hazard classification;
- Secondly, is there enough scientific evidence / information available on the individual processes to allow them to be taken into account already?

After further discussions on the principle and supporting evidence it was suggested to distinguish three groups of metals:

1. Metals that methylate such as Hg;
2. Metals that quickly hydrolyse and form different species that precipitate in the water

- column (Fe, Al, Sb, Sn, Mo, Cr, ...);
3. Metals for which the key question is 'irreversibility' (i.e. binding to a non-bioavailable form under a range of environmental conditions). This group would cover for example Cu, Ni, Zn and Pb.

One industry expert added that, in the view of their association, binding of a metal to a sulphide (applicable to the 3<sup>rd</sup> group in particular) is an intrinsic property of the metal. In the subsequent discussion three points for consideration were proposed:

1. In flowing water sediment is not present, but as the metal will be bound on the sediment it will soon be deposited in the lower parts of the river where sedimentation and Acid Volatile Sulphide (AVS) formation, etc. will again take place;
2. In the risk assessments carried out information on AVS was used and evidence shows that AVS is available but under different concentration;
3. If the above two points are applicable, which cut-off values should be taken is subject to further discussion.

Subsequently the Chairman referred back to the earlier discussion during which possible categorisation of different types of metals was mentioned and asked whether the participants could agree that for the 2<sup>nd</sup> group of metals:

- Hydrolysis and precipitation to form different species is a very significant removal process for their removal from the aquatic system. When this process occurs very quickly it **can** be taken into account for hazard classification, noting that the hazard assessment should consider the properties of the newly produced species.

No disagreement with the above proposal was expressed by the participants; therefore the discussion on this point was closed.

For the 3<sup>rd</sup> group of metals where the partitioning as well as binding to AVS is an important factor for determining the rate of substance removal from the aquatic compartment, it was not possible to reach a consensus. Different views were expressed on this group of metals as to what extent intrinsic properties of metals drive partitioning and binding to the sediment and which are the parameters (type of information) for defining irreversibility under different environmental conditions.

In conclusion, the Chairman announced that in the light of the current guidance update the outcome of this discussion would imply that the current 'CLP guidance', Annex IV would need to be re-checked and amended, indicating that discussions are still ongoing. In parallel, expert group discussions should be initiated. The Chairman summarised that as there is no consensus and no common understanding on how the concept of 'rapid removal' could be applied in the context of hazard classification under CLP, further work on Annex IV of the 'CLP Guidance' cannot continue before a further expert meeting has taken place. An industry expert indicated that further important relevant data has not yet been tabled and concluded that this should be a future task from the industry side. He also indicated that this specific topic is probably only relevant for a very small number of substances.

The Chairman closed the meeting by concluding the following:

- **There is no overall consensus on whether and how the concept of 'rapid removal' should be used in the environmental hazard classification of metals and metal compounds. Further discussions are needed;**
- **Broad agreement is however, evident on certain 'rapid removal'**

- mechanisms for certain types of metals;
- References to the concept of 'rapid removal' in the current Annex IV to the 'CLP Guidance' should be amended in the short term before further consultation with CARACAL;
  - A new draft version of the 'CLP Guidance' should be generated to address the 2<sup>nd</sup> ATP changes in general asap – without awaiting the final outcome of the discussion of the 'rapid removal' issue;
  - An expert group should be established to further discuss the concepts and relevant information requirements;
  - If in future Industry wishes to justify the application of the concept of 'rapid removal' for groups of metals other than group 2 above, they should aim to provide further arguments supported by examples.