

ECI COMMENTS TO

CLH REPORT: PROPOSAL FOR HARMONIZED CLASSIFICATION AND LABELLING OF BASIC COPPER CARBONATE [COPPER (II) CARBONATE – COPPER (II) HYDROXIDE (1:1)] ($\text{CH}_2\text{CU}_2\text{O}_5$)

These comments also reflect the considerations of the following task forces and consortium;

European Antifouling Copper Task Force

Wood Preservative Copper Task Force

The European Union Copper Task Force (Plant Protection Products Regulation [PPPR])

Copper Compound Consortium

ABSTRACT

We acknowledge and appreciate the alignment with the copper risk assessment dossier as well as the incorporation of some post risk assessment data.

For most endpoints, the data used and interpretation of the data reflect the hazard profiles agreed in the copper risk assessment report (RAR) and used for the REACH dossiers.

For the environmental endpoints, we noted some differences between the copper carbonate CLH report and the REACH dossier. These differences did not lead to a different classification.

1) INTRODUCTION

We appreciate the opportunity to review the CLH report but do regret the significant overlap between the public consultation period and the year-end holidays.

We acknowledge and appreciate the alignment between the CLH report and the copper risk assessment dossier as well as the incorporation of some post risk assessment data.

For the environmental endpoints, we noted some differences between the copper carbonate CLH report and the REACH dossier. These differences did not lead to a different classification. Please find below a more detailed review on the environmental hazard assessment.

2) HUMAN HEALTH HAZARDS

No comments.

3) ENVIRONMENTAL HAZARDS

In the CLH and REACH dossier, the following classifications for environmental hazard were derived:

Acute category 1. M factor = 10.

Chronic category 2.

Some differences in the assessment were noted as described below.

3.1 ECOTOXICITY DATABASE

The RAR ERVs, retained in the CLH report, are slightly higher than the ones defined in the REACH dossier because in the RAR geometric mean values were derived, also when only 2 and 3 data-points per species were available. In the REACH report, the geometric mean was only applied if 4 or more data-points are available. This refinement slightly lowered some species-specific reference values (more information from Van Sprang and Delbeke, 2010 -Attachment 1).

Table 1 summarises the ERVs retained from the DAR, RAR and REACH, expressed as mg copper carbonate/L (after molecular weight translation)

Table 1: Summary of the acute and chronic ERVs for copper carbonate

Source	pH range	Acute ERV CuCO ₃	Chronic ERV CuCO ₃
RAR	5.5-6.5	0.051	0.035
	>6.5-7.5	0.082	0.013
	>7.5-8.5	0.052	0.028
REACH	5.5-6.5	0.043	0.035
	>6.5-7.5	0.061	0.013
	>7.5-8.5	0.052	0.020
	across all pHs	0.060	0.026

Note: In the RAR and the REACH dossier, the ecotoxicity data from *P. promelas* at pH 6 (Erickson *et al.*, 1996) were rejected and it may be clarifying to also mention this in the CLH report.

The test was performed with larvae (< 24 h old) in a flow-through with a very short retention time (\pm 45 min.), using a diluted reconstituted medium (prepared from Lake Superior water through reverse osmosis) with a low hardness (22 mg/l CaCO₃) and DOC concentration (reverse osmosis) This test performed represent worst case conditions explaining therefore this low LC50 value. Moreover the observed pH dependency observed for *P. promelas* at (sensitivity at pH 6 versus pH 7) is unexpected and may be related to insufficient adaptation to low pH conditions (from Van Sprang and Delbeke, 2010 - Attachment 1).

3.2 CLASSIFICATION

The CLH and REACH dossiers consider copper carbonate as fully soluble (4.7 mg/L at pH 7 and 0.01 mg/L at pH 9). No transformation dissolution data are available. For comparison purposes, the classification versus solubility for copper compounds and copper flake is presented in Attachment 2 for completeness.

The CLH and REACH dossiers consider copper carbonate as rapid degradable (with evidence of removal from the water column presented in the CLH and REAH reports).

Classification in both dossiers (CLH and REACH) is therefore based on straight comparison between ERV values (Table 1) and classification cut-off values.

- Table 1 consistently indicated Acute ERV values between < 0.1 mg/L and >0.01 mg/L. The assessment therefore leads to an environmental hazard **Acute 1 - H400. M factor = 10.**
- For chronic toxicity, the ERVs are <0.1 mg/L and >0.01 mg/L leading to an environmental hazard classification entry as **Chronic 2.**

4) RELEVANT ATTACHMENTS

Attachment 1: Van Sprang and Delbeke, 2010

Attachment 2: Classification versus solubility of copper compounds and copper flake

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