General remark for all copper dossiers. Why was the acute ERV for copper not based on the acute aquatic toxicity results on Pimephalus promelas which are considered of high quality?

We support the proposed classification of CuSCN as aquatic acute 1-H400 and aquatic chronic cat 2- H411, however we propose a Macute =100.

The measured water solubility of Copper (pH4.1 = 23.09 mg/l, pH9=0.12 mg/l) is greater than the acute ERV of the dissolved metal ion and therefore the metal compound can be considered readily soluble.

In water copper is rapidly bound to material resulting in very low levels of free Cu2+ ion in solution. More than 70% of copper is removed from the water column within 28 days. Copper remobilization from the sediment is considered limited (the pseudo-steady state total and dissolved copper conc. were lower than the conc. corresponding to 70% removal, which is supported by sediment sensitivity analyses). Copper binds to the sediment organic carbon and the anaerobic sulphides with formation of Copper sulfide. The latter has a very low stability constant and thus the remobilization of the anaerobic sediment layer is considered limited.
There is still lack of scientific consensus on the interpretation of rapid removal for classification purposes.

	pH range	Ecotoxicity Reference Value (ERV) CuSCN	
		L(E)C50 (mg/l)	NOEC (mg/l)
DAR		0.09	
EU RAR	pH 5.5-6.5	0.008	0.038
EU RAR	pH >6.5-7.5	0.091	0.014
EU RAR	pH >7.5-8.5	0.057	0.031

The lowest Acute ERV of copper thiocyanate however should be based on the results of the metal for Pimephales promelas at pH 5.5-6.5. Adjusted for molecular weight of the metal compound, the ERV is lower than 1 mg/l and therefore copper thiocyanate should be classified as Aquatic acute 1, H400. If the number of datapoints<4, the lowest value should be taken. The lowest datapoint (n=2) for Pimephalus promelas = 0.0044mg/l, corrected for molecular weight, results in a M-factor of 100 (0.001mg/l<acute ERV≤0.01mg/l).

Based on the geom.mean of the most sensitive species (invertebrate Ceriodaphnia dubia, at pH >6.5-7.5), the lowest Chronic ERV for the metal compound is 0.014 mg/l. If the chronic ERVcompound is > 0.01mg/l and ≤ 0. 1 mg/l and there is evidence of rapid environmental transformation, than the compound should be classified as chronic category 2.