Telomer Research Program

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Report Title: 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro- Acute Immobilisation Test (48h) to *Daphnia magna* STRAUS Limit Test with the Water Accommodated Fraction (WAF)

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Study Objective: Determination of the acute toxicity of the water accommodated fraction (WAF) of 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-, to *Daphnia* magna in a limit test conducted according to OECD Guideline No. 202.

Materials and Methods: Test beakers were pre-coated for 14 days prior to testing. 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-, with a nominal loading of 100 mg/L was shaken for 96 hours at 20 ºC. After phase separation, 20 mL per test replicate was transferred from the clear liquid phase to each glass beaker and covered with glass tops. After 14 days of pre-coating, the beakers were emptied and used for the test. The test solution was prepared as above. Four replicates, each containing twenty, 2-24 h old daphnids, were placed in an incubator (light/dark cycle 16/8 for 48 h at 20 ± 1ºC). Dilution water (Elendt M4 medium) without the test substance was tested as control. Potassium dichromate was used as a reference toxicant.

Findings: The limit test concentration and control were analyzed for the test substance by gas chromatography with mass spectrometric detection. The percentage immobility was determined in the limit test concentration and the control after 24 h and 48 h. The mean measured concentration of the water accommodated fraction was 0.7 mg/L. The percent immobilization after 24 h and 48 h of exposure are given in Table 1. There was no biologically significant effect (≤10%) in the limit test concentration or in the control group**.** The EC_{50} value of the reference toxicant after 24 h was within the prescribed concentration range of 1.0-2.5 mg/L.

Table 1: Percentage immobility of daphnids after 24 h and 48 h of exposure.

IMMOBILISATION [%]										
Water accommodated fraction [mg/L][a]	24 h replicates					48 h replicates				
	1	2	3	4	M	1	2	3	4	M
0.16	0	0	0	0	0	20	0	0	0	5
Control	0	0	0	0	0	0	0	0	0	0

M = mean value
[a] = mean measured test substance concentration

Conclusion: There was no biologically significant effect (≤10%) of the water accommodated limit test concentration of 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-, on *Daphnia magna* during this acute limit test. The EC50 was greater than 0.7 mg/L based on mean measured test substance concentrations.