

REACH requires information on hazardous properties of substances to be generated avoiding animal testing where possible. It is the objective of the present case study with thiochemicals to extract as much information as possible from available experimental data with fish, daphnia and algae and to fill data gaps for analogues to be registered under REACH in 2018. Based on considerations of chemical similarity and common mode of action (MOA) the data gaps regarding the aquatic toxicity of the thiochemicals were largely closed by trend analysis ("category approach") and read-across within the same group, for example, thioglycolates or mercaptopropionates.