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Regulation of non-relevant metabolites of plant protection products in drinking and groundwater in the EU: Current status and way forward

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2 **groundwater in the EU: Current status and way forward.**

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11 **Abstract**

12 Non-relevant metabolites are defined in the EU regulation for plant protection product
13 authorization and a detailed definition of non-relevant metabolites is given in an EU
14 Commission DG Sanco (now DG SANTE – Health and Food Safety) guidance document.
15 However, in water legislation at EU and member state level non-relevant metabolites of
16 pesticides are either not specifically regulated or diverse threshold values are applied. Based
17 on their inherent properties, non-relevant metabolites should be regulated based on
18 substance-specific and toxicity-based limit values in drinking and groundwater like other
19 anthropogenic chemicals. Yet, if a general limit value for non-relevant metabolites in drinking
20 and groundwater is favored, an application of a Threshold of Toxicological Concern (TTC)
21 concept for Cramer class III compounds leads to a threshold value of $4.5 \mu\text{g L}^{-1}$. This general
22 value is exemplarily shown to be protective for non-relevant metabolites, based on individual
23 drinking water limit values derived for a set of 56 non-relevant metabolites. A consistent

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