

Please use this document to provide your comments, including the section (or lines) related to the comment. You can also suggest text for revision.

Section/lines	Comment	Suggested revision
43	Thresholds for persistence are indeed consistent across regions; however, it is important to note that the reference temperatures differ (12°C in Europe, 20°C elsewhere, which is equivalent to a factor of 2 difference in effective thresholds). Apart from reference temperature threshold values for persistence from other frameworks (POP, TSCA/EPA PBT profiler) are consistent with the EU vP values but not with the EU P values	“...substance with persistent/bioaccumulative/toxic (PBT) properties, with different threshold values across regions...”
48	The Koc value is not the octanol-water partition coefficient. This value when estimated in natural soils which represent non- standardized substrates/soils cannot be considered as substance property.	The soil organic carbon - water partition coefficient (Koc) is a parameter that is often applied as a measure...
263	Incomplete sentence; should be a sub-headline “Summary of region Europe” (in blue)	
290	This may be a good place to add one sentence about the reference temperature of 12°C that is explicitly stated in EU REACH and EU CLP (as this is a key difference from other legislations in Europe, such as Regulation (EC) No.1107/2009, and elsewhere in the world). Health and Consumers (DG SANCO), Brussels.	For 1107/2009 the following document should be cited: European Commission (2012). DG SANCO Working Document on Evidence Needed to Identify POP, PBT and vPvB Properties for Pesticides. Brussels, 25 September 2012, rev. 3.
693-697	Suggest adding the following additional sentence:	...regulatory context is considered. “However, only a few regulations discriminate between persistent (P) and very persistent (vP) substance properties.” Persistence is consistently recognised....

1167-1171	Suggest adding the following additional sentence:	...regulatory context is considered. “However, only a few regulations discriminate between persistent (P) and very persistent (vP) substance properties.” Persistence is consistently recognised...
1168	Thresholds for persistence are indeed consistent across regions; however, it is important to note that the reference temperatures differ (12°C in Europe, 20°C elsewhere, which is equivalent to a factor of 2 difference in effective thresholds)	
1238-1239	The current phrasing of the sentence does not correctly reflect the rules of 1107/2009 (as described in Table 6; see entry there)	The same parameters (K_{foc} and 1/n) can also be derived from other studies (e.g. column leaching studies, lysimeter studies, field studies). Field/leaching studies and monitoring may refine the risk assessment.
1459-1460	This sentence (and partly the whole paragraph) does not fully reflect the content of FAO (2000). This specific sentence is particularly confusion, as it mixes bioaccumulation with soil processes, and mentions “dissolved phase of soils” (perhaps meaning “pesticide in the dissolved phase”?)-	Rephrase: Relevant soil processes include degradation and mobility . The latter is informed by ...
1509-1510	Consider reformatting of text	
1553-1556	Suggest adding the following additional sentence:	...persistence of a substance. “The test methods available in its current forms are designed to test the degradation of rather small and individual molecules and thus exclude the testing of complex mixtures or large molecules such as polymers.” As conditions in receiving...
1806	Suggest adding the following sentence:	The EFSA scientific opinion (EFSA, 2008[49]) states that the Q₁₀ approach can be used equivalently to the Arrhenius equation to describe the temperature dependence of degradation rates. A representative Q₁₀ value of 2.58 is proposed, which corresponds to an activation energy of 65.4 kJ mol⁻¹ in the Arrhenius equation.
1839	Suggest to change and correct statement:	OECD TG 307 recommends soil moisture contents for optimal microbial growth within a range of 40-60% water holding capacity

		(WHC) and which corresponds approximately to soil water potentials of about 0.1-0.33 bar suction pressure.
1841	Suggest to change and correct statement:	...field dissipation half-lives to the reference moisture conditions i.e.: 100% Field Capacity (FC) = soil moisture at pF2 using the exponential Walker equation (Walker, 1974) that relates the degradation rate to the soil moisture content. (Walker, A. (1974). The effects of soil moisture on the persistence of soil-applied herbicides. <i>Weed Research</i>, 14, 263–270.)
1933	Suggest adding the reference.	-
1940	Suggest adding the following sentence:	“Guidance on how monitoring data may be generated, evaluated and used in a regulatory context can be obtained from the EU water framework report entitled: Second Review of the Priority Substances List under the Water Framework Directive - Monitoring-based exercise (https://circabc.europa.eu/sd/a/7fe29322-946a-4ead-b3b9-e3b156d0c318/Monitoring-based%20Exercise%20Report_FINAL%20DRAFT_25nov2016.pdf)”
1956-1957	Suggest rephrasing the sentence “Method is not standardised or mentioned in GHS” as follows (to be consistent with wording of the sentence in line 1961-1962):	“The proposed method is not standardised, mentioned in GHS or considered fully acceptable in regulatory assessment under REACH or CLP.”
1978	Correct link to reference needed (12 Error! Reference source not found.)	
1995	Suggest modifying the sentence for clarification	Note that the mandate does not cover mobility in air, or particle bound transport in soil and water ~~of substances adsorbed on sediments~~ and these routes were therefore excluded from further consideration.
2001	Suggest modifying the sentence for clarification	Where the influence of concentration on adsorption is quantified by using the non-linear Freundlich equation , the relevant endpoints are Kf and Kfoc.
2004	Suggest using more precise wording	often to support exposure risk assessment

2016	Suggest modifying the sentence for clarification	Despite the limitations, the applicability of alternative approaches to extend sorption models to improve upon the Koc concept have ~~not yet~~ been demonstrated to the point of regulatory acceptance only in exceptional cases for the exposure assessment of pesticides.
2101	Suggest removing “a” in sentence or use singular for methods	cannot be completely defined by a simplified laboratory methods such as those reviewed here
2107	Sentence not supported by guideline text. Suggest modifying the sentence.	It can be concluded that HPLC estimates are of higher reliability than those from QSAR estimates, but cannot fully replace batch equilibrium experiments (such as OECD TG 106)
2112	Suggest removing “one” in sentence	As a general point, no ~~one~~ QSAR method
2116-2117	Suggest adding the following information:	...of soil is minor. “However, the applicability of the HPLC method to (an)ionic substances requires further elaboration.” The subgroup also considered...
2163	Suggest modifying the sentence for clarification	the handling/packing of the soil and the probable non-equilibrium state of the test system due to unrealistic high water infiltration rate.
2170	Suggest to fully explain the abbreviation UFZ-LSER at its first appearance: <i>Linear Solvation Energy Relationship</i>	
2231	Suggest using more specific wording	Noting the points above, overall, the currently available test methods were concluded to be suitable for use in a regulatory context to obtain an estimate that can be used as a measure for substance mobility in soil or sediment.
2243	Statement is incorrect for aged sorption studies that, due to the same soil selection criteria, exhibit the same representativeness as e.g. OECD studies TG 307 and TG 106. Normalization procedures can also be applied to field studies (e.g., as is done with the correction of temperature and humidity for OECD TG 307 or organic carbon content for OECD TG 106), thereby making them representative for other	It should be noted that the outdoor study types described below (lysimeter, field degradation, field leaching study) refer ~~only~~ to specific local environmental conditions during the study (~~non-representative for the range of global environmental conditions~~). However, methods are available (e.g. inverse modelling) to derive normalized substance parameters that can be used.

	situations as well. It is recommended that the statement be revised for clarity.	
2265	Suggest using more precise wording	...parameters can be ~~standardized~~ normalized using the same methods that are applied in OECD TG 307
2309 and 2328, 2350 (Table 13, page 118, 119) 2871 (page 137)	Unusual and inconsistent citation of an EFSA statement which should not be cited as <i>Hernandez-Jerez et al., 2023</i> because EFSA Statements are <i>institutional scientific opinions</i> , not author-owned research articles. Suggest changing the citation and the reference.	EFSA PPR Panel (2023). <i>Statement on the design and conduct of groundwater monitoring studies supporting groundwater exposure assessments of pesticides</i> . EFSA Journal , 21(3), 7990. https://doi.org/10.2903/j.efsa.2023.7990
2339 2871	Typo. Suggest correction. Also consider reference on page 134.	Boesten and ter Horts ~~Horts~~ Horst , 2021. Boesten, J. and M. ter Horts ~~Horts~~ Horst (2021), <i>Manual for PEARLNEQ v6</i> ,
2341	In a strict sense, a mass balance is difficult to establish. Suggest using more precise wording.	outdoor studies for which in most cases dissipation pathways can be quantified ~~and mass balance is possible~~
2356	Suggest using more precise wording	...it is possible to derive ~~standardized~~ normalized degradation (e.g. DegT50) and mobility (e.g. Koc, Kd) values
2365	Remove the parentheses from the citation and place them around the year of publication.	as discussed in detail in (EFSA, (2014[36])
2382	Suggest considering more precise wording	for generating ~~standardised~~ normalized results
2433	Suggest considering wording	and the importance of longer-term mobility data with regards ~~to~~ hazard classification
2450	In a strict sense, a mass balance is difficult to establish. Suggest using more precise wording.	for which dissipation pathways can often be quantified ~~and mass balance is possible~~
2544ff	Suggest considering wording.	However, it was also raised that more recent scientific discussions around the dissipation through the formation of bound residues, or non-extractable residues (NER), ~~which is~~ are not addressed in these definitions