

Table S18: Vapour pressure and EFSA conclusions on the potential volatilisation and capacity for long-range transport for frequently detected active substances

Parameter	Detection frequency	Vapour pressure (mm Hg at 25°C)	EFSA estimate on capacity for transport
Glyphosate	100%	1.31×10^{-5}	"Glyphosate has low vapour pressure (1.31×10^{-5} Pa at 25 °C, (Robson, 1991), see IIA 2.3.1) and therefore, significant concentrations are not expected to be found in air through volatilisation following the use of the compound according to the proposed GAP. The calculated atmospheric life time of glyphosate is < 2 days, thus long range transport via air can be excluded. As the expected distribution to the atmosphere by glyphosate is likely to be extremely low in field use based on very low vapour pressure, no estimates of environmental concentrations expected in air were provided by the Notifier." (EFSA 2015, B.8.8, p 426)
S-Metolachlor	92%	1.7×10^{-2}	"S-metolachlor has a vapour pressure of 1.7×10^{-2} Pa at 25°C (extrapolated from higher temperatures) and a Henry's Law's constant of 2.20×10^{-3} Pa x m ³ /mol at 25°C. These values, especially the relatively high vapour pressure suggest that a significant volatilisation of S-metolachlor may occur after application. The estimated half-life of S-metolachlor in the atmosphere (by hydroxyl radical oxidation) is 2.3 h (calculated with 1.5×10^6 OH-radicals/cm ³ and 12 h day). Due to the short persistence in the atmosphere, the PECair is expected to be negligible and global effects as a result of long-range transport are not expected to be of relevance." (EFSA 2018, Vol.1, 116-117; confirmed on p 127; 197))
Pendimethalin	90%	3.34×10^{-3}	"Based on the results of the Atkinson calculation, pendimethalin will be rapidly degraded by photochemical processes in the troposphere (DT50 ~ 4 h). Therefore, it can be concluded that there is no risk for long-range transport of pendimethalin via air. (EC 2015, Vol.1 p 79) The applicants provided data on the monitoring of air, surface water and remote areas. Pendimethalin is observed in elevated levels in air in areas where pendimethalin is used." > "No evidence for long range to remote areas was observed. The concentration observed in the environment are below the ecological relevant concentrations." (EFSA 2015, Vol.1 p 79-80)
Terbutylazine	90%	9.0×10^{-5}	"This combination of properties indicates that volatilisation from aqueous systems / soil water is likely to be low." > "Therefore, terbutylazine (MT0) would be unlikely to be subject to long range aerial transport and air is not a likely route of environmental contamination." (s. EFSA 2007, Vol. 3, 777f.)
Prosulfocarb*	82%	7.9×10^{-4}	"Prosulfocarb will readily volatilise from the leaf surface but volatilisation from the soil will be limited."(s. EFSA 2006, Vol. 1, 52) > "Because of the rapid degradation of prosulfocarb in air due to hydroxyl reaction, predicted environmental concentrations in air (PECA) are expected to be negligible."

*Prosulfocarb [55]: vapour pressure 7.9×10^{-4} at 20°C, no data at 25°C

Metabolites were omitted; approval for Chlorothalonil was expired end of 2019.

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