



CASE STUDY

TERMINAPHOS

Tier 1

BY TOXLEARN4EU

FUNDED BY ERASMUS+

Case study Terminaphos

Tier 1 Data

Table 1. Some characteristics of Terminaphos.

Pesticide group	Insecticide
Chemical abstracts name	2,2, imaginary phosphorothioate
Log(Kow)	4.8-5.4
Koc	5657-30500 mL.g ⁻¹
Solubility (water, 25 °C)	1.3 mg.L ⁻¹
Solubility (water, 19.5 °C)	0.33 mg.L ⁻¹
Henry's Law constant (25°C)	3.55.10 ⁻⁵ atm.m ⁻³ .mol ⁻¹
DT50 sediment -water	3 days
Mode of action	Cholinesterase inhibitor
Pest organisms	Coleoptera, Diptera, Homoptera, Lepidoptera

Table 2. Summary of relevant toxicity data of Terminaphos (in µg/L).

Endpoint	Value
EC50 <i>Daphnia magna</i>	1 (LC50, 48h)
EC50 <i>Americamysis bahia</i>	0.13 (EC50 96 h)
LC50 <i>Oncorhynchus mykiss</i>	78 (LC50, 96h)
EC50 <i>Pseudokirchneriella subcapitata</i>	> 1000 (EC50,72h)
NOEC <i>Chironomus riparius</i>	1.7 (NOEC, 28d)
NOEC <i>Daphnia magna</i>	0.1 (NOEC, 21d)
NOEC <i>Oncorhynchus mykiss</i>	18 (NOEC, 28d)
NOEC <i>Pseudokirchneriella subcapitata</i>	> 1000 (NOEC, 72h)

Table 3. Summary of relevant exposure information of Terminaphos.

Characteristic	Drainage ditch	Main waterway
Application rate	1 year ⁻¹	1 year ⁻¹
Crop	Potatoes	Potatoes
Calculated PEC _{max}	1 µg/L	0.1 µg/L
Calculated PEC _{max}	0.3 µg/L (with buffer zone)	0.03 µg/L (with buffer zone)
Calculated chronic 7-d TWA PEC	0.01 µg/L	0.001 µg/L