

Permethrin (CAS no. 52645-53-1, 61949-77-7, 51877-74-8, 54774-47-9, 61949-76-6, 54774-45-7, 54774-46-8 etc.)

[Current status]

Finished Tier 1 *in vivo* tests (Tier 1 assessment to be implemented)



### Results of Reliability Evaluation (based on literature information)

Suggested Effects							
Estrogenic	Anti-estrogenic	Androgenic	Anti-androgenic	Thyroidal	Anti-thyroidal	Ecdysone	Others*
P	P	-	P	P	P	-	P

P: Effects suggested by existing information

-: Effects NOT suggested by existing information

Others\*: Hypothalamic-Pituitary-Gonad Axis etc.

\*\*: Effects suggested by USEPA EDSP

### Results of Tier 1 *in vitro* tests

Tested Mode of Actions							
Estrogenic	Anti-estrogenic	Androgenic	Anti-androgenic	Thyroidal	Anti-thyroidal	Ecdysone	Others
(P)	N	-	N	N	N	-	-

P: EC<sub>50</sub> or IC<sub>50</sub> values were detected

N: EC<sub>50</sub> or IC<sub>50</sub> values were not detected

To be implemented: Mode of actions selected but not tested yet

-: Mode of actions not selected for testing

### Results of Tier 1 *in vivo* tests

#### Fish Short Term Reproduction Assay (FSTRA: OECD TG229) using Medaka

In this study, no increase in male hepatic vitellogenin level was observed at sublethal concentrations to suggest estrogenic effect. It was also not concluded that permethrin is an androgenic compound. A statistically significant decrease in female hepatic vitellogenin level and number of eggs were observed to suggest anti-estrogenic effect.