Table 11

In this guide

Table 11. Repeated dose toxicity studies for PFCAs - PFDA

*Derived by contractor; ** calculated according to EFSA. (2012); NR – not reported; NA – not applicable.

Substance / CAS no. / purity / reference	Strain & species / sex / no. of animals	Dose (mg/kg bw/day) / vehicle / route of admin / duration / Guideline (GL) study / Good Laboratory Practice (GLP) status	PFAS concentration (µg/mL / µg/g)	Observed effects at LOAEL (controls vs treated groups). Recovery (controls vs treated groups).	Published NOAEL / LOAEL (mg/kg bw/day)	Study comme

PFDA CAS No. 335-76-2 97.8%. Frawley et al. (2018)	Sprague-Dawley rats. Female 8/group.	0, 0.125, 0.25, 0.5, 1 or 2. Deionized water/2%, Tween 80, Gavage, 28 days, Non-GL study, GLP not stated.	NR	Males (mean ± SE): ↑ relative liver weight (%): 3.42 ± 0.09 vs 3.77 ± 0.10. Recovery not assessed.	Females: NA / 0.125	The dat under c not indu exposu chain polyfluo may inc effects consiste class.

PFDA CAS No. 335-76-2 97.8%. Frawley et al. (2018)	B6C3F1 mice, Female 8/group.	0, 0.31, 0.625, 1.125, 2.5 or 5. Deionized water/2%, Tween 80, Gavage, 28 days, Non-GL study, GLP not stated.	NR	Males (mean ± SE): ↑ absolute liver weight (g): 1.122 ± 0.031 vs 1.42 ± 0.054 ↑ relative liver weight (%): 4.83 ± 0.08 vs 5.61 ± 0.06. Recovery not assessed.	Females: 0.31 / 0.625.	The dat under c not indu exposu chain polyfluo may inc effects consiste class.

				Males (mean ± SD): ↑ absolute liver weight (g): 11.89 ± 0.51 vs 13.54 ± 0.40. ↑ relative liver weight (g): 35.50 ± 0.97 vs 39.32 ± 0.53. ↓ TP (g/dL): 6.4 ± 0.1 vs 6.2 ± 0.1. ↓ globulin (g/dL): 2.2 ± 0.1 vs 1.9 ± 0.0. ↑ albumin/globulin ratio: 1.9 ± 0.1 vs 2.2 ± 0.1. ↓ cholesterol (mg/dL): 107 ± 5 vs 78 ± 3.		
			At 0 mg/kg bw/day in males (mean ± SE). Plasma: 0.022 ± 0.004 Liver: <LOD. At 0.156 mg/kg bw/day in males. Plasma: 8.5 ± 0.6 Liver: 44.7 ±	↑ gene expression of Acox1: 1.03 ± 0.10 vs 1.70 ± 0.17. ↑ gene expression of Cyp4a1: 1.04 ± 0.10 vs 10.85 ± 1.11. ↑ gene expression of Cyp2b1: 1.06 ± 0.21 vs 3.33 ±		
PFDA CAS No. 335-76-2	Sprague-Dawley rats.	0, 0.156. 0.312. 0.625. 1.25 or 2.5. Tween® 80 in deionized water.			Males: NA / 0.156.	A major toxicity liver. Cyp2b1 activati mediat Acox1/C suggest