Table 21

In this guide

Table 21. Developmental toxicity studies for PFCAs - PFOA

*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 aut comment

				Females (mean ± SD): ↑ absolute and relative liver weight: data only provided in figures. ↑ AST and ALT: data only provided in figures. Hepatocyte hypertrophy, disarrangement, cytoplasmic loss, nuclear migration, acidophil bodies and inflammatory cell infiltration. ↑ mRNA levels of genes related to inflammation: Tlr4, Myd88, Traf6, Rela, IL1b and Tnf. ↑ apoptosis in liver: protein expression of PARP-1, cleaved caspase-3 and Bax. Recovery not assessed.		Histopatho changes, characteriz enlargeme disarrange of hepatoc cytoplasm nuclear migration, acidophilbo inflammato cell infiltra and reduct glycogen storage, w observed i maternal n the PFOA exposed gr Serum ALT AST were a significantl increased. Gestationa exposure t PFOA induc maternal h alterations through th liver axis.
PFOA (ammonium salt) CAS No. 3825-26-1 98.4%. Xu et al. (2022)	Balb/c mice. Pregnant females. 8/dose.	0 or 1, Milli Q water, Gavage, GD0 to parturition, Non-GL study, GLP not stated.	NR		Females: NA / 1*	

PFOA CAS No. not given 99.2%. Zhang et al. (2021)	Kunming mice. Pregnant females, 10/dose.	0, 1, 5, 10, 20 or 40 Distilled water, Gavage, GD1-7, Non-GL study, GLP not stated.	NR	Males (mean ± SD): ↑ liver index: data only provided in figures. ↓ SOD and GSH-Px in liver: data only provided in figures ↑ MDA in liver: data only provided in figures. Recovery not assessed.	Females: NA / 1*	The presen study resu suggest th PFOA is hepatotoxi dose-depe manner, ar short-term exposure c cause swel the liver ce which expl the increas liver index The higher PFOA level administer the lower t SOD and G Px, and the greater the accumulati The results suggested oxidative damage is potential mechanism PFOA hepatotoxi