

Zajac and Abel, 1990

Guidelines/Criteria	
	Reference: Zajac CS, Abel EL. 1990. Lack of lead effects on fetal development and offspring learning when combined with alcohol in the Long-Evans rat. <i>Teratology</i> 41:33-41.
In vivo Study Type Route of Administration Species & age of animals	Developmental toxicity study Oral gavage Pregnant Long-Evans rats
Study Duration	Gestation days 10-20
Type of Mixture Binary >2 components Similar acting or dissimilar What Mode of Action was investigated?	Yes Dissimilar Nothing specific
Parameters/End points Measured Target organs/Critical effects Pharmacological changes or adverse effects	Maternal weight gain, live foetuses, resorptions, foetal weight Adverse
Individual Components Characterisation of individual compounds Name, exact chemical name, CAS no. Were dose responses established for individual components? Were no effect levels established? Were doses below the NO(A)ELs investigated?	Lead acetate and 20% w/v alcohol Yes Yes, 75 mg/kg for lead, 5g/kg for ethanol Yes
Mixtures Investigated Number of dose levels How does the mixture make-up compare to individual components? (e.g. low dose) equivalents used?) No. of technical replicates per exposure condition (<i>in vitro</i>) No. of animals per dose group (<i>in vivo</i>)	3 which were at or below individual components NOELs, plus 3 higher 0.2x & 0.67x NOEL for the two components, 0.4x & 0.89x NOEL, 0.6x and 1x NOEL Typically 5 dams per group
Observations/Findings	No statistically significant effects of the two lowest dose mixtures, whilst the highest dose mixture caused reduced maternal weight gain.
Overall opinion (e.g. sufficient numbers of groups investigated, group sizes adequate, observations reproducible, low dose levels used investigated)	Study seems well done. Results and statistics poorly presented, but conclusions can be drawn for our purposes. Unclear if lead doses are expressed as lead or as lead acetate. A second experiment was done which was non-relevant.