

## NTP Report 35 mice repro

Guidelines/Criteria	
Reference:	NTP. 1993a. NTP Technical Report on toxicity studies of a chemical mixture of 25 groundwater contaminants. NTP toxicity report series no. 35 - NIH Publication 93-3384. National Toxicology Program, National Institute of Environmental Health Sciences (NIEHS), Research Triangle Park, NC, USA
<b>In vivo Study Type</b> Route of Administration Species & age of animals	drinking water, water control group B6C3F1 mice, 6 weeks
<b>Study Duration</b>	14-week and 26-week
<b>Type of Mixture</b> Binary >2 components Similar acting or dissimilar  What Mode of Action was investigated?	no yes dissimilar action assumed (chemicals mix to simulate groundwater supplies near hazardous dumps) repeated dose toxicity
<b>Parameters/End points Measured</b> Target organs/Critical effects  Pharmacological changes or adverse effects	sperm parameter, oestrous cycle, reproductive tissue evaluation, epididymides and testes weights adverse effects
<b>Individual Components</b> 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?	yes One mixture was investigated: Acetone, Aroclor 1260, Arsenic, Benzene, Cadmium, Carbon tetrachloride, Chloroform, Chlorobenzene, Chromium, 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,2-Dichloroethane, 1,2-t-Dichloroethylene, Di(2-ethylhexyl)phthalate, Ethylbenzene, Lead, Mercury, Methylene chloride, Nickel acetate tetrahydrate, Phenol, Tetrachloroethylene, Toluene, 1,1,1-Trichloroethane, Trichloroethylen, Xylenes  No, only mixtures at four dose levels were administered Yes Yes presumably
<b>Mixtures Investigated</b> 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> )	Target concentrations: Acetone: 5.3, 15.9, 53 ppm, Aroclor 1260: 0.001, 0.003, 0.01 ppm, Arsenic: 0.9, 2.7, 9.0 ppm, Benzene: 1.25, 3.75, 12.5 ppm, Cadmium: 5.1, 15.3, 51.0 ppm, Carbon tetrachloride: 0.04, 0.12, 0.40 ppm, Chloroform: 0.7, 2.1, 7.0 ppm, Chlorobenzene: 0.01, 0.03, 0.10 ppm, Chromium: 3.6, 10.8, 36.0 ppm 1,1-Dichloroethane: 0.14, 0.42, 1.4 ppm, 1,1-Dichloroethylene: 0.05, 0.15, 0.5 ppm, 1,2-Dichloroethane: 4.0, 12, 40.0 ppm, 1,2-t-Dichloroethylene: 0.25, 0.75, 2.5 ppm, Di-2-ethylhexyl)-phthalate: 0.0015, 0.0045, 0.015 ppm, Ethylbenzene: 0.03, 0.09, 0.3 ppm, Lead: 7.0, 21, 70.0 ppm, Mercury: 0.05, 0.17, 0.50 ppm, Methylene chloride: 3.75, 11.25, 37.5 ppm, Nickel: 0.68, 2.04, 6.80 ppm, Phenol: 2.9, 8.7, 29.0 ppm, Tetrachloroethylene: 0.34, 1.02, 3.40 ppm, Toluene: 0.7, 2.1, 7.0 ppm, 1,1,1-Trichloroethane: 0.2, 0.6, 2.0 ppm, Trichloroethylen: 0.65, 1.95, 6.50 ppm, Xylenes: 0.16, 0.48, 1.60 ppm Total concentrations: 37.8025, 113.128, 378.025 ppm  Would have to be evaluated, NOAELs of individual compounds are not given. not applicable 10 rats/sex/group
<b>Observations/Findings</b>	High dose: disturbed oestrous cycle, slightly decreased left epididymides weights (only in interim group).
<b>Overall opinion</b> (e.g. sufficient numbers of groups investigated, group sizes adequate, observations reproducible, low dose levels used investigated)	Additional parameters investigated.