

Table C2 Subset of experimental animal studies for consideration in the exposure-response analysis: developmental neurotoxicity or reproductive effects (prenatal exposure and/or exposure during lactation)				
Species, strain and number	Exposure	Critical effects in pups (or dams where indicated)	LOEL or NOEL (mg Al/kg bw/d) D _a = administered dose D _c = combined dose	References
Al species (number of dose levels in addition to control)	GD = gestational day PND = postnatal day			
Swiss Webster mice (six pups per dose group) Al lactate	Diet during gestation and lactation, continued from PND 21–45. One maternal dose level: D _c : 100 mg Al/kg bw/d	Decrease in myelin sheath width.	LOEL = 100 (D _c)	Golub and Tarara (1999)
Charles River CD1 mice (10–32 dams per group) Al nitrate	Gavage, dams exposed during gestation One maternal dose level: D _c : 29 mg Al/kg bw/d	Increased mortality of dams; Reduced fetal body weight.	LOEL = 29 (D _a)	Belles et al. (1999)
NIH mice (seven dams per group) Al lactate	Diet, dams exposed during gestation and lactation, pups then exposed PND 21–40 One maternal dose level: D _a : 100 mg Al/kg bw/d	Increased phospholipid and galactolipid contents in brain myelin; Increased lipid peroxidation.	LOEL = 130 (D _c)	Verstraeten et al. (1998)
Swiss Webster mice and Sprague-Dawley rats (8–12 per group) Al lactate	Diet, dams exposed during gestation and lactation One maternal dose level: D _c : 100 mg Al/kg bw/d	Lower retention of both Mn and Fe following gavage of solutions with these elements.	LOEL = 100 (D _c)	Golub et al. (1996)
Swiss mice (number not specified) Al hydroxyde (with and without ascorbic acid)	Gavage, during gestation One dose level: D _a : 103.8 mg Al/kg bw/d	No differences found in body weight of dams; No malformations or developmental variations observed.	NOEL = 103.8 (D _a)	Colomina et al. (1994)
Swiss Webster mice (12 pups per group) Al lactate	Diet, dams exposed during gestation and lactation, continued exposure of one group via diet during lifespan One maternal dose level: D _a : 100 mg Al/kg bw/d	Reduced auditory startle response.	LOEL = 130 (D _c)	Golub et al. (1994)

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Swiss Webster mice (6–8 pups per group) Al lactate	Diet, dams exposed during gestation and lactation, continued exposure of one group via diet during lifespan One maternal dose level: D _c : 130 mg Al/kg bw/d	Effects on manganese metabolism.	LOEL = 130 (D _c)	Golub et al. (1993)
Swiss mice (10–13 dams per group) Al hydroxide or Al lactate	Gavage, dams exposed during gestation One maternal dose level: D _a : 57.5 mg Al/kg bw/d	Maternal toxicity; Fetal body weight reduced in Al lactate group; Increased incidence of morphological effects (cleft palate, delayed ossification of parietals) in Al lactate group.	LOEL = 57.5 (D _a)	Colomina et al. (1992)

*Dose calculated with Health Canada's reference values for body weights and intakes (Health Canada 1994).

**Dose calculated with author's reported body weights and intakes.