

Ethylbenzene
C₆H₅C₂H₅
[CAS No. 100-41-4]
Reproductive toxicant: Group 2

There are no human studies clearly demonstrating the toxicity of ethylbenzene with respect to reproduction; however, there is some evidence in animal studies indicating its adverse effects on development¹⁻³. An increased (dose-dependent) incidence of skeletal variations (supernumerary ribs) was reported after inhalation exposure (6–7 h/day) to ethylbenzene (100, 1,000 ppm) during gestation in rats^{1, 3}. After 24 h/day inhalation exposure to ethylbenzene (600, 1200, 2,400 mg/m³) during gestation, increased percentages of dead or resorbed fetuses and fetuses with retarded ossification were observed in rats². Malformations were also observed both in rats and in mice². Based

on this evidence, ethylbenzene is classified as a Group 2 reproductive toxicant.

References

- 1) Hardin BD, Bond GP, Sikov MR, Andrew FD, Beliles RP, Niemeier RW. Testing of selected workplace chemicals for teratogenic potential. *Scand J Work Environ Health* 1981;7 (Suppl 4): 66–75.
- 2) Ungvary G, Tatrai E. On the embryotoxic effects of benzene and its alkyl derivatives in mice, rats and rabbits. *Arch Toxicol* 1985; 8 (suppl): 425–30.
- 3) Andrew FD, Buschbom RL, Cannon WC, et al. (Battelle Pacific Northwest Laboratories, Richland, WA, Contract No. 210-79-0037). Teratologic assessment of ethylbenzene and 2-ethoxyethanol. Cincinnati, Ohio, National Institute for Occupational Safety and Health, US Department of Health, Education and Welfare, 1981.