

Carbon disulfide
CS₂
[CAS No. 75-15-0]
Reproductive toxicant: Group 1

Several epidemiology studies have shown an association between occupational exposure to carbon disulfide and increased menstrual abnormality rates among female workers in viscose rayon factories in China^{1,2)}. Animal studies have shown developmental effects of CS₂, including fetal malformation and death, and other reproductive toxicities such as reduced sperm counts and abnormal mating behavior in rats³⁻⁶⁾. Based on this evidence, carbon disulfide is classified as a Group 1 reproductive toxicant.

References

- 1) Cai SX, Bao YS. Placental transfer, secretion into mother milk of carbon disulphide and the effects on maternal function of female viscose rayon workers. *Ind Health* 1981; 19: 15-29.
- 2) Zhou SY, Liang YX, Chen ZQ, et al. Effects of occupational exposure to low-level carbon disulfide (CS₂) on menstruation and pregnancy. *Ind Health* 1988; 26: 203-14.
- 3) Lehotzky K, Szeberenyi JM, Ungvary G, et al. Behavioural effects of prenatal exposure to carbon disulphide and to aromatol in rats. *Arch Toxicol* 1985; Suppl. 8: 442-6.
- 4) Tabacova S, Hinkova L, Balabaeva L. Carbon disulphide tetratogenicity and postnatal effects in rat. *Toxicol Lett* 1978; 2: 129-33.
- 5) Saillenfait AM, Bonnet P, de Ceaurriz J. Effects of inhalation exposure to carbon disulfide and its combination with hydrogen sulfide on embryonal and fetal development in rats. *Toxicol Lett* 1989; 48: 57-66.
- 6) Tepe SJ, Zenick H. The effects of carbon disulfide on the reproductive system of the male rat. *Toxicology* 1984; 32: 47-56.