

**Ethylene glycol monomethyl ether**  
**CH<sub>3</sub>OCH<sub>2</sub>CH<sub>2</sub>OH**  
**[CAS No. 109-86-4]**  
**Reproductive toxicant: Group 1**

Many epidemiology studies have shown a positive association between occupational exposure to ethylene glycol monomethyl ether (EGME) and adverse effects on reproduction and/or development. Increased mental retardation, deformity, and chromosomal aberration rates were reported among infants of female EGME-exposed workers<sup>1)</sup>. Significantly increased spontaneous abortion and subfertility rates were reported among female workers exposed to a mixture of glycol ethers at high concentrations<sup>2)</sup>. The odds ratios of the neural tube defect, cleft lip, and double congenital anomalies associated with exposure to glycol ethers significantly rose in a case-control study of congenital anomalies<sup>3)</sup>. An increase in oligospermia and azoospermia<sup>4)</sup>, as well as a tendency to microrchidia<sup>5)</sup>, was found in male workers with exposure to glycol ethers. Many animal studies have shown reproductive effects including testicular atrophy<sup>6)</sup>, a decrease in fertility<sup>7)</sup>, embryotoxicity<sup>8, 9)</sup>, and teratogenicity<sup>8, 9)</sup>. Based on this evidence, EGME is classified as a Group 1 reproductive toxicant.

**References**

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