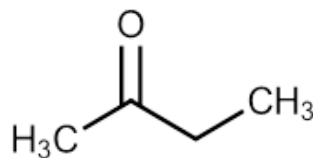


Methyl Ethyl Ketone (MEK)

C₄H₈O



Summary of Health Effects

Methyl ethyl ketone (MEK) can affect the reproductive system of animals and may affect how unborn babies develop.

How is MEK used?

MEK is made by humans, but also exists naturally in the environment.¹ It is used as a solvent in acrylic coatings, adhesives, paint removers, cleaning fluids, polystyrene and inks.^{1,2}

Toxicity: What are its health effects?

Animal studies indicate that MEK exposure may result in various reproductive effects.^{3,4} MEK was associated with maternal toxicity and developmental effects at high exposure levels and decreased offspring weights at lower

exposure levels.^{3,4} When pregnant rats and mice breathed in high levels of MEK, they had underdeveloped fetuses.³

The nervous system was affected when rats and mice drank water with high concentrations of MEK.¹

Exposure: How can a person come in contact with it?

A person can come in contact with MEK by breathing in contaminated air, fumes from consumer products, or cigarette smoke, by drinking contaminated water, and from skin contact.¹

The 2014 National Health and Nutrition Examination Survey (NHANES) report did not include data for MEK.

References

1. Agency for Toxic Substances and Disease Registry (1995). *ATSDR Toxicological profile for 2-butanone*. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Services. Retrieved from www.atsdr.cdc.gov/toxprofiles/tp29.pdf
2. U.S Environmental Protection Agency (2003). *Toxicological review of methyl ethyl ketone in support of summary information on the Integrated Risk Information System (IRIS)*. Retrieved from cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=71
3. Cox G.E., Bailey, D.E., Morgareidge, K. (1975). Toxicity studies in rats with 2-butanol including growth, reproduction and teratologic observations. Food and Drug Research Laboratories, Inc. Waverly, NY. Report No. 91MR R 1673. (as cited in U.S. Environmental Protection Agency, 2003).

4. Deacon, M.M., Pilny, M.D., John, J.A., Schwetz, B.A., Murray, F.J., Yakel, H.O., Kuna, R.A. (1981). Embryo- and fetotoxicity of inhaled methyl ethyl ketone in rats. *Toxicology and Applied Pharmacology*, 59, 620-2. (as cited in U.S. Environmental Protection Agency, 2003).