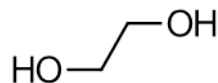


Ethylene Glycol

 $C_2H_6O_2$ 

Summary of Health Effects

Ethylene glycol may affect the way unborn babies develop in both humans and animals. In animals, it also causes some unborn babies to die.

How is ethylene glycol used?

Ethylene glycol is used in antifreeze and other de-icing fluids, as a solvent in the paint and plastic industry, and in the formulation of printer ink, stamp pad ink, and ballpoint pen ink.¹

Toxicity: What are its health effects?

When ethylene glycol was fed to rodents during pregnancy, fetal death and malformations occurred.²

Ethylene glycol may affect human development if oral exposures are high.²

Animal studies have concluded that the developing fetus is the most sensitive target for toxic effects.³

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

A person can come in contact with ethylene glycol through their skin.³

The most common route of exposure for the general population is through dermal absorption.³

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

References

1. U.S. Environmental Protection Agency, Technology Transfer Network (2000). *Hazard summary for ethylene glycol*. Retrieved from www.epa.gov/sites/production/files/2016-09/documents/ethylene-glycol.pdf
2. U.S. Department of Health and Human Services, National Toxicology Program, Center for the Evaluation of Risks to Human Reproduction (2004). *CERHR Monograph on the potential human reproductive and developmental effects of ethylene glycol*. Retrieved from ntp.niehs.nih.gov/ntp/ohat/egpg/ethylene/eg_monograph.pdf
3. Agency for Toxic Substances and Disease Registry (2010). *ATSDR Toxicological profile for ethylene glycol*. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Services. Retrieved from www.atsdr.cdc.gov/toxprofiles/tp.asp?id=86&tid=21