



Ethylene Glycol Monomethyl Ether

Product Stewardship Summary

June 2009

Chemical Name:	Ethylene glycol monomethyl ether
Synonyms:	2-Methoxyethanol; Poly-Solv EM
CAS Number:	109-86-4
CAS Name:	Ethylene glycol monomethyl ether
EC (EINECS) Number:	203-713-7

- *General Description.* Ethylene glycol monomethyl ether (EGME) is a low viscosity, liquid produced from the reaction methanol and ethylene oxide. It contains both ether and alcohol groups which allows it to act as a strong solvent for many substances.
- *Manufacture.* This product is manufactured by the reaction of ethylene oxide and methanol.
- *Applications.* EGME is used in strippers, solvents, and industrial processing chemicals.
- *Benefits.* The product benefits are its effectiveness in stripping.
- *General Precautions.*

EGME has low toxicity from a single exposure following ingestion or contact with the skin. It is moderately toxic from acute inhalation exposure, and causes irritation to the respiratory system if inhaled. EGME exerts its principal toxicological effects on the kidneys, brain, blood, thymus, central nervous system, immune system, and testes. Irritation to the lungs occurs following inhalation exposure. It is mildly irritating to the skin and eyes. EGME will produce immediate pain upon eye contact with redness and slight transitory cloudiness of the cornea. The effects to the eyes cleared within 24 hours.

EGME is moderately toxic from repeated exposure. The primary organ system affected is the blood, but adverse changes to the testes were also noted. Reproductive performance may be impaired from repeated exposure.

EGME does not produce damage to genetic material and is therefore not considered to be a mutagen.

EGME has been shown to produce malformations to the developing offspring. The primary areas of the developing organism affected following EGME exposure are the skeletal and cardiovascular systems. Based on these results in experimental animals, EGME is considered to be a developmental toxin.

EGME is not considered to be a cancer-causing agent.

EGME has low toxicity to fish, aquatic invertebrates and aquatic plants.

- *Physical Precautions.* EGME is a combustible liquid and should be handled according to label directions.
- *Likelihood of Exposure.* The likelihood of exposure to EGME is low due to the lack of its use in consumer products. In fact, EGME is produced exclusively for industrial use. Government-established exposure guidelines exist for EGME, and the levels of exposure to this chemical in the industrial environment are controlled through industrial hygiene procedures. The threshold limit value for EGME, as established by the American Conference of Governmental Industrial Hygienists, is 0.1 ppm (0.3 mg/m³) as a time-weighted average exposure for 8 hours.
- *Risk Management.* The likelihood of risk to either the formulator using the concentrated chemical or the consumer using products with diluted EGME is low; however, label directions for proper use should be read carefully and followed.

For additional information, please visit our web site at www.archchemicals.com and click on "Contact Us".

This summary is intended to give general information about the chemical or categories of chemicals addressed. It is not intended to provide an in-depth discussion of all health and safety information. Additional information on the chemical is available through the applicable Material Safety Data Sheet which should be consulted before use of the chemical. This summary does not supplant or replace required regulatory and/or legal communication documents.