



Diethylene Glycol Monomethyl Ether

Product Stewardship Summary

November 2009

Chemical Name:	Diethylene glycol monomethyl ether
Synonyms:	2-(2-Methoxyethoxy)ethanol; Methoxydiglycol; 2,2'-Oxybis- ethanol monoethyl ether; Poly-Solv DGME
CAS Number:	111-77-3
CAS Name:	2-(2-Methoxyethoxy)ethanol
EC (EINECS) Number:	203-906-6

- *General Description:* Diethylene glycol monomethyl ether (DGME) is a colorless liquid at room temperature with a mild, ether-like odor. It is highly soluble (miscible) in water.
- *Manufacture:* This product is manufactured by the reaction of methanol and ethylene oxide.
- *Applications:* DGME is a good solvent for many classes of dyes including basic chrome, naphthol, and stabilized reduced vat dyes.
- *Benefits:* DGME has low odor and high solvency and can fill a wide range of solvent requirements.
- *General Precautions:* DGME is of low toxicity from acute or repeated exposure regardless of the route, i.e. orally, dermally, or via inhalation. Based on this low level of toxicity, the risk of injury from

exposure to DGME, either during production or from the use of products which contain this material, is very low. DGME is not an irritant to the skin, but it may be slightly irritating to the eye. Any irritation to the eyes would be transient, and without any permanent damage.

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

DGME is not a cancer-causing agent.

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

DGME is of low toxicity to aquatic organisms. Therefore, this material does not any significant risk to fish, aquatic invertebrates, or aquatic plants.

The potential for absorption of DGME by the body is very low. However, if it is absorbed, it is excreted rapidly with no potential for bioaccumulation.

- *Likelihood of Exposure:* Although most transfers of the chemical are contained in enclosed spaces, exposure to the chemical could occur at a manufacturing facility, treating plant and site of an accidental release during shipment. Generally, such exposure is low and will not present any potential for adverse effects. Even in the event of a relatively large exposure, the only effect that would be expected to occur would be transient eye irritation. From use by consumers of products containing DGME, the highest exposures are likely to be associated with the use of paints and varnishes that contain this solvent. As is the case of use of any product containing DGME, exposure to this chemical from the use of paints and varnishes would be very low and without potential for the development of any adverse health effects.

- *Risk Management:* The likelihood of exposure to the chemical is low when the end-user carefully reads and follows all label directions for proper use. The risk of adverse effect to health from either exposure during production or from use by consumers of a DGME-containing product is not significant.

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.