ARCHIVE: **Archived because this document no longer provides current guidance. Refer to VA30001.03.001 for the updated document.**

TITLE: **Definition of whether propylene glycol meets the definition of a hazardous substance under the VAP**

DATE EFFECTIVE: 1997

KEYWORDS: propylene glycol, 1,2-propanediol, hazardous substance, listed hazardous wastes F-and K-wastes, antifreeze

RULE: OAC 3745-300-01

QUESTION: Is propylene glycol considered a hazardous substance under the VAP, and if so, is certified laboratory data required for it's analysis?

ANSWER: Based on a decision by VAP management, DES and Legal, in 1997, anything that was listed either a hazardous substance, component of a hazardous substance, or petroleum would be included in the VAP laboratory certification program. There are several analytes listed on some certificates which are not hazardous substances (e.g., sulfates), but a component of hazardous substances or petroleum, (e.g. sulfates are components of lead sulfate).

Propylene glycol (CASRN 57-55-6; 1,2-propanediol), is not listed as a hazardous substance in 40 CFR 302.4, which is the designation of hazardous substances listed within the Federal Register. None of the listed hazardous waste categories (F-and K-wastes) contain propylene glycol as a component of hazardous wastes.

BACKGROUND: The Merck Index describes propylene glycol as nontoxic antifreeze used in brewing and dairy product manufacture. Propylene glycol is also a component of marine and pet-friendly automotive antifreezes. The Merck Index categorization of propylene glycol as nontoxic is essentially correct, especially for acute exposures and clinical manifestations. USEPA/OSWER's Superfund Office has published provisional chronic and subchronic Reference Dose (RfD) values for propylene glycol in the 1997 edition of HEAST. The critical effects in the chronic study include decreased erythrocyte count, decreased hematocrit and decreased hemoglobin in dogs; the critical effect in the subchronic study is kidney lesions in rats. Thus, since provisional

RfDs are available, both USEPA Regions III and IX have published risk-based cleanup numbers which are based on the HEAST chronic RfD.

However, OSWER has developed toxicity criteria (e.g., reference doses) for a number of substances which would not be considered **hazardous substances** under the VAP statutory definition of hazardous substances. Simply because Superfund has developed toxicity criteria does not mean that the substance is a **hazardous substance.**

SUMMARY: Propylene glycol is **not** considered a hazardous substance by the VAP, nor is it reported to be a component of hazardous substances. Therefore, certified laboratory analyses of propylene glycol is not required within the VAP.

OHIO EPA CONTACT: For any questions concerning this issue, please contact the VAP central office at (614) 644-2924.