

# Survey of Glycol Ether Use in Taiwan, 1991

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## Abstract

Glycol ethers (including glycol ether esters) are a group of solvents with medium-high boiling points and low evaporation rates, possessing solvent characteristics of alcohol/ether functions (or ether/ester functions). They have been widely used in coatings and other industrial products for more than half a century. Recently, E-series glycol ethers have been found to show reproductive and teratogenic toxicity, and throughout much of the world they are being replaced by the so-called P-series glycol ethers. In responding to the impact of the worldwide transition from E- to P-series glycol ethers, the current status of glycol ether use in Taiwan was studied. This study focuses on the type and quantity of these solvents being used, worker and public knowledge about their hazards, and possible changes in government regulations being considered. In this study, we found that large quantities of E-series glycol ethers were imported and used in Taiwan. The best estimates are: 2-ME, 2,500 tons; 2-EE, 1,200 tons; 2-EEA, 5,000-8,000 tons; 2-BE, 8,000 tons annually in 1991. For P-series glycol ethers, only about 2,500 tons are being used. Lack of knowledge about the potential toxic effects of the E-series glycol ethers is very common among users, regulatory agencies, academic institutes, and the general public. It is hoped that the results of this study, along with educational efforts, government regulations, and provision of technical services, will help prevent Taiwan from becoming a dumping site for these toxic chemicals.