

6. References

- Ashby, J. & Tennant, R.W. (1991) Definitive relationships among chemical structure, carcinogenicity and mutagenicity for 301 chemicals tested by the US NTP. *Mutat. Res.*, **257**, 229–306
- Begley, R. (1986) Solvent makers eye compliance deadline. *Chem. Mark. Rep.*, **November 3**, 34, 40
- Boatman, R.J. (2001) Glycol ethers: Ethers of propylene, butylene glycols, and other glycol derivatives. In: Bingham, E., Cohrssen, B. & Powell, C.H., eds, *Patty's Toxicology*, 5th Ed., Vol. 7, New York, John Wiley & Sons, pp. 271–395
- Borghoff, S.J., Prescott, J.S., Janszen, D.B., Wong, B.A. & Everitt, J.I. (2001) α 2u-Globulin nephropathy, renal cell proliferation, and dosimetry of inhaled *tert*-butyl alcohol in male and female F-344 rats. *Toxicol. Sci.*, **61**, 176–186
- Canter, D.A., Zeiger, E., Haworth, S., Lawlor, T., Mortelmans, K. & Speck, W. (1986) Comparative mutagenicity of aliphatic epoxides in Salmonella. *Mutat. Res.*, **172**, 105–138
- Capen, C.C., Dybing, E., Rice, J.M. & Wilbourn, J.D., eds (1999) *Species Differences in Thyroid, Kidney and Urinary Bladder Carcinogenesis* (IARC Scientific Publications No. 147), Lyon, IARC
- Chemical Information Services (2004) *Directory of World Chemical Producers*, Dallas, TX [www.chemicalinfo.com]
- Chinn, H., Anderson, E. & Yoneyama, M. (2000) *CEH Marketing Research Report: Glycol Ethers*, Palo Alto, CA, SRI International
- Connor, T.H., Pullin, T.G., Meyne, J., Frost, A.F. & Legator, M.S. (1980) Evaluation of the mutagenicity of n-BGE and t-BGE in a battery of short-term assays (Abstract No. Ec-12). *Environ. Mutag.*, **2**, 284

¹ After thorough discussion, several members of the Working Group favoured an evaluation of the evidence of carcinogenicity in experimental animals as *sufficient*. This view emphasizes the dose-related induction of hepatoblastomas in male and female mice, because hepatoblastoma is a rare neoplasm with a low spontaneous incidence in mice, especially in females. However, the majority of the Working Group considered the evidence to be *limited* for the reasons discussed in Section 5.3.

- Dabney, B.J. (1979) *Mutagenic Evaluation of t-Butyl Glycidyl Ether*, Midland, MI, Dow Chemical Co.
- Dill, J.A., Fuciarelli, A.F., Lee, K.M., Mellinger, K.M., Burka, L.T. & Roycroft, J.H. (2004) Toxicokinetics of propylene glycol mono-*t*-butyl ether following intravenous or inhalation exposure in rats and mice. *Inhal. Toxicol.*, **16**, 1–20
- Doi, A.M., Roycroft, J.H., Herbert, R.A., Haseman, J.K., Hailey, J.R., Chou, B.J., Dill, J.A., Grumbein, S.L., Miller, R.A., Renne, R.A. & Bucher, J.R. (2004) Inhalation toxicology and carcinogenesis studies of propylene glycol mono-*t*-butyl ether in rats and mice. *Toxicology*, **199**, 1–22
- Frost, A.F. & Legator, M.S. (1982) Unscheduled DNA synthesis induced in human lymphocytes by butyl glycidyl ethers. *Mutat. Res.*, **102**, 193–200
- Gupta, V.P. (1987) *Recovery of Propylene Glycol Mono t-Butoxy Ether*. US Patent 4,675,082
- IARC (2000) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Vol. 77, *Some Industrial Chemicals*, Lyon
- Knifton, J.F. (1994) *Synthesis of Low Molecular Weight Glycol Ethers from Oxiranes plus Olefins*, US Patent No. 5,349,110
- Lock, E.A., Charbonneau, M., Strasser, J., Swenberg, J.A. & Bus, J.S. (1987) 2,2,4-Trimethylpentane-induced nephrotoxicity. II. The reversible binding of a TMP metabolite to a renal protein fraction containing α_{2u} -globulin. *Toxicol. appl. Pharmacol.*, **91**, 182–192
- Lyondell Chemical Co. (2004) *Technical Data Sheet: ARCOSOLV® PTB (Mono) Propylene Glycol Tertiary Butyl Ether*, Houston, TX
- Miller, R.R., Hermann, E.A., Young, J.T., Landry, T.D. & Calhoun, L.L. (1984) Ethylene glycol monomethyl ether and propylene glycol monomethyl ether: Metabolism, disposition, and subchronic inhalation toxicity studies. *Environ. Health Perspect.*, **57**, 233–239
- Multicase (2002) META Version 1.200. Beechwood, OH
- National Library of Medicine (2004) *tert-Butoxypropanol* [<http://chem.sis.nlm.gov/chemidplus/chemidlite.jsp>] accessed 02/02/2004
- National Toxicology Program (1990a) *Toxicology and Carcinogenesis Studies of Glycidol (CAS No. 556-52-5) in F344/N Rats and B6C3F₁ Mice (Gavage Studies)* (NTP TR 374), Research Triangle Park, NC
- National Toxicology Program (1990b) *Toxicology and Carcinogenesis Studies of Allyl Glycidyl Ether (CAS No. 106-92-3) in Osborne-Mendel Rats and B6C3F₁ Mice (Inhalation Studies)* (NTP TR 376), Research Triangle Park, NC
- National Toxicology Program (1994) *Chemical Disposition in Mammals: The Metabolism and Disposition of Propylene Glycol t-Butyl Ether in the Male Fischer 344 Rat* (Final Report; NIEHS Contract NO1-ES-85320), Research Triangle Park, NC
- National Toxicology Program (2000) *NTP Technical Report on the Toxicology and Carcinogenesis Studies of 2-Butoxyethanol (CAS No. 111-76-2) in F344/N Rats and B6C3F₁ Mice (Inhalation Studies)* (Tech. Rep. Ser. No. 484), Research Triangle Park, NC
- National Toxicology Program (2004a) *NTP Technical Report on the Toxicology and Carcinogenesis Studies of Propylene Glycol Mono-t-Butyl Ether (CAS No. 57018-52-7) in F344/N Rats and B6C3F₁ Mice and a Toxicology Study of Propylene Glycol Mono-t-Butyl Ether in Male NBR Rats (Inhalation Studies)* (Tech. Rep. Ser. No. 515; NIH Publ. No. 04-4449), Research Triangle Park, NC

- National Toxicology Program (2004b) On-line data for *tert*-butyl glycidyl ether [http://ntp-server.nih.gov/htdocs/Results_Status/Resstatb/7665727.html]
- National Toxicology Program (2004c) On-line data for *n*-butyl glycidyl ether [http://ntp-server.nih.gov/htdocs/Results_Status/Resstatb/2426086.html]
- Oxygenated Solvents Producers Association (2004) *The Glycol Ethers* [<http://www.ethers-deglycol.org/english/index.html>]
- Short, B.G., Steinhagen, W.H. & Swenberg, J.A. (1989) Promoting effects of unleaded gasoline and 2,2,4-trimethylpentane on the development of atypical cell foci and renal tubular cell tumors in rats exposed to *N*-ethyl-*N*-hydroxyethylnitrosamine. *Cancer Res.*, **49**, 6369–6378
- Staples, C.A. & Davis, J.W. (2002) An examination of the physical properties, fate, ecotoxicity and potential environmental risks for a series of propylene glycol ethers. *Chemosphere*, **49**, 61–73
- Whorton, E.B., Jr, Pullin, T.G., Frost, A.F., Onofre, A., Legator, M.S. & Folse, D.S. (1983) Dominant lethal effects of *n*-butyl glycidyl ether in mice. *Mutat. Res.*, **124**, 225–233
- Williams, T.M. & Borghoff, S.J. (2001) Characterization of *tert*-butyl alcohol binding to α 2u-globulin in F-344 rats. *Toxicol. Sci.*, **62**, 228–235
- Zeiger, E., Haworth, S., Mortelmans, K. & Speck, W. (1985) Mutagenicity testing of di(2-ethylhexyl)phthalate and related chemicals in *Salmonella*. *Environ. Mutag.*, **7**, 213–232
- Zeiger, E., Anderson, B., Haworth, S., Lawlor, T. & Mortelmans, K. (1992) *Salmonella* mutagenicity tests: V. Results from the testing of 311 chemicals. *Environ. mol. Mutag.*, **19** (Suppl. 21), 2–141