PHENOL 203

9. REFERENCES

- *ACGIH. 2001. Documentation of the threshold limit values and biological exposure indices. Phenol. 7th ed. Cincinnati, OH: American Conference of Governmental Industrial Hygienists.
- *ACGIH. 2005. Threshold limit values for chemical substances and physical agents and biological indices. Cincinnati, OH: American Conference of Government Industrial Hygienists.
- *Achilli G, Cellerino GP, d'Eril GM, et al. 1995. Simultaneous determination of 27 phenols and herbicides in water by high-performance liquid chromatography with multi-electrode electrochemical detection. J Chromatogr 697:357-362.
- *Adlercreutz H. 1995. Phytoestrogens: Epidemiology and a possible role in cancer protection. Environ Health Perspect Suppl 103(7):103-112.
- *Adinolfi M. 1985. The development of the human blood-csf-brain barrier. Dev Med Child Neurol 27:532-537.
- *Agency for Toxic Substances and Disease Registry. 1989. Decision guide for identifying substancespecific data needs related to toxicological profiles. Atlanta, GA: Agency for Toxic Substances and Disease Registry, Division of Toxicology.
- *Agency for Toxic Substances and Disease Registry. 1990. Biomarkers of organ damage or dysfunction for the renal, hepatobiliary, and immune systems. Subcommittee on Biomarkers of Organ Damage and Dysfunction. Atlanta, GA: Agency for Toxic Substances and Disease Registry.
- *Agency for Toxic Substances and Disease Registry. 2006. Case studies in environmental medicine. Benzene toxicity. Atlanta, GA: Agency for Toxic Substances and Disease Registry. www.atsdr.cdc.gov. March 24, 2006.
- *Ahmed N, Hale K. 1994. A microassay for urinary phenol using capillary gas chromatography and optimised enzymic hydrolysis. Clin Chim Acta 230:201-208.
- *Al-Harazin IM, Nakhla GF, Farooq S. 1991. Start-up of sequencing batch reactors for toxic wastewater treatment. J Environ Sci Health A26:673-687.
- *Altman PK, Dittmer DS. 1974. Biological handbooks: Biology data book. Volume III, 2nd ed. Bethesda, MD: Federation of American Societies for Experimental Biology, 1987-2008, 2041.
- *Amlacher E, Rudolph C. 1981. The thymidine incorporation inhibiting screening system (TSS) to test carcinogenic substances (a nuclear DNA synthesis suppressive short term test). Arch Geschwulstforsch 51:605-610.
- *Amlathe S, Upadhyay S, Gupta VK. 1987. Spectrophotometric determination of trace amounts of phenol in wastewater and biological fluids. Analyst 112:1463-1465.

| *Cited in text | | |
|----------------|--|--|

PHENOL 204 9. REFERENCES

- *Amoore JE, Hautala E. 1983. Odor as an aid to chemical safety: Odor thresholds compared with threshold limit values and volatilities for 214 industrial chemicals in air and water dilution. J Appl Toxicol 3:272-290.
- *Andersen ME, Clewell HJ,III, Gargas ML, et al. 1987. Physiologically-based pharmacokinetics and the risk assessment process for methylene chloride. Toxicol Appl Pharmacol 87:185-205.
- *Andersen ME, Krishnan K. 1994. Relating *in vitro* to *in vivo* exposures with physiologically-based tissue dosimetry and tissue response models. In: Salem H, ed. Animal test alternatives. Aberdeen Proving Ground, MD: U.S. Army Chemical Research Development and Engineering Center.
- *Aranyi C, O'Shea WJ, Graham JA, et al. 1986. The effects of inhalation of organic chemical air contaminants on murine lung host defenses. Fundam Appl Toxicol 6:713-720.
- *Artiola-Fortuny J, Fuller WH. 1982. Adsorption of some monohydroxybenzene derivatives by soils. Soil Sci 133(1):18-26.
- *ASTM. 1978. Annual book of ASTM standards part 31, water. Method No. D1783, Philadelphia, PA: American Standards. 650-655.
- *Atkinson R, Aschmann SM, Winer AM. 1987. Kinetics of the reactions of NO₃ radicals with a series of aromatic compounds. Environ Sci Technol 21:1123-1126.
- *Axelsson G, Lutz C, Rylander R. 1984. Exposure to solvents and outcome of pregnancy in university laboratory employees. Br J Ind Med 41:303-312.
- *Baj Z, Majewska E, Zeman K, et al. 1994. The effect of chronic exposure to formaldehyde, phenol and organic chlorohydrocarbons on peripheral blood cells and the immune system in humans. J Invest Allergol Clin Immunol 4:186-191.
- *Baker MD, Mayfield CI. 1980. Microbial and nonbiological decomposition of chlorophenols and phenol in soil. Water Air Soil Pollut 13:411-424.
- *Baker EL, Landrigan PJ, Bertozzi PE, et al. 1978. Phenol poisoning due to contaminated drinking water. Arch Environ Health 33:89-94.
- *Baldwin MK, Selby MA, Bloomberg H. 1981. Measurement of phenol in urine by the method of Van Haaften and Sie: A critical appraisal. Analyst 106:763-767.
- *Ballinger LN, Cross SE, Roberts MS. 1995. Availability and mean transit times of phenol and its metabolites in the isolated perfused rat liver: Normal and retrograde studies using tracer concentrations of phenol. J Pharm Pharmacol 47:949-956.
- *Barale R, Marrazzini A, Betti C, et al. 1990. Genotoxicity of two metabolites of benzene: Phenol and hydroquinone show strong synergistic effects *in vivo*. Mutat Res 244:15-20.
- *Baranowska-Dutkiewicz B. 1981. Skin absorption of phenol from aqueous solutions in men. Int Arch Occup Environ Health 49:99-104.

PHENOL 205 9. REFERENCES

- *Barnes DG, Dourson M. 1988. Reference dose (RfD): Description and use in health risk assessments. U.S. Environmental Protection Agency. Regul Toxicol Pharmacol 8:471-486.
- *Behl CR, Linn EE, Flynn GL, et al. 1983. Permeation of skin and eschar by antiseptics. I: Baseline studies with phenol. J Pharm Sci 72:391-397.
- *Benet LZ, Kroetz DL, Sheiner LB. 1995. Pharmacokinetics: The dynamics of drug absorption, distribution and elimination. In: Hardman JG, Gilman, AG, Limbird LE, eds. Goodman & Gilman's the pharmacological basis of therapeutics, 9th ed. New York, NY: McGraw Hill.
- *Bentur Y, Shoshani O, Tabak A, et al. 1998. Prolonged elimination of half-life of phenol after dermal exposure. Clin Toxicol 36(7):707-711.
- *Berger GS. 1994. Epidemiology of endometriosis. In: Berger GS, ed. Endometriosis: Advanced management and surgical techniques. New York, NY: Springer-Verlag, 3-7.
- *Berman E, Schlicht M, Moser VC, et al. 1995. A multidisciplinary approach to toxicological screening: I. Systemic toxicity. J Toxicol Environ Health 45:127-143.
- *Beveridge T. 1997. Haze and cloud in apple juices. Crit Rev Food Sci Nutr 37:75-91.
- *Beyrouty P. 1998. Final report: A 13-week neurotoxicity study of phenol administered in the drinking water to the rat, with TSCA notice of receipt of test data. Chemical Manufacturers Association. Submitted to U.S. Environmental Protection Agency under TSCA Section 4. OTS0559602.
- *Bieniek G. 1994. Concentrations of phenol, *o*-cresol, and 2,5-xylenol in the urine of workers employed in the distillation of the phenolic fraction of tar. Occup Environ Med 51:354-356.
- *Bieniek G, Wilczok T. 1986. Separation and determination of phenol, α -naphthol, m- and p-, o-cresols and 2,5-xylenol and catechol in the urine after mixed exposure to phenol, naphthalene, cresols and xylenols. Br J Ind Med 43:570-571.
- *Boatto G, Nieddu M, Carta A, et al. 2004. Determination of phenol and *o*-cresol by GC/MS in a fatal poisoning case. Forensic Sci Int 139(2-3):191-194.
- *Bois FY, Smith MT, Spear RC. 1991. Mechanisms of benzene carcinogenesis: Application of a physiological model of benzene pharmacokinetics and metabolism. Toxicol Lett 56:283-298.
- *Boutwell RK, Bosch DK. 1959. The tumor-promoting action of phenol and related compounds for mouse skin. Cancer Res 19:413-424.
- *Boyd SA. 1982. Adsorption of substituted phenols by soil. Soil Sci 134:337-343.
- *Boyd SA, Shelton DR, Berry D, et al. 1983. Anaerobic biodegradation of phenolic compounds in digested sludge. Appl Environ Microbiol 46:50-54.
- *Brandorff NP, Flyvhokm M-A, Beck ID, et al. 1995. National survey on the use of chemicals in the working environment. Estimated exposure events. Occup Environ Med 52:454-463.

PHENOL 206 9. REFERENCES

- *Briggs GG. 1981. Theoretical and experimental relationships between soil adsorption, octanol-water partition coefficients, water solubilities, bioconcentration factors and the parachor. J Agric Food Chem 29:1050-1059.
- *Brown VKH, Box VL, Simpson BJ. 1975. Decontamination procedures for skin exposed to phenolic substances. Arch Environ Health 30:1-6.
- *Bruce RM, Santodonato J, Neal MW. 1987. Summary review of the health effects associated with phenol. Toxicol Ind Health 3:535-568.
- *Budavari S, O'Neil MJ, Smith A, et al, eds. 1989. Phenol. The Merck index, 11th ed. Rahway, NJ: Merck & Co., Inc., 1150.
- *Bulsiewicz H. 1977. The influence of phenol on chromosomes of mice (*Mus musculus*) in the process of spermatogenesis. Folia Morphol (Warsaw) 36:13-22.
- *Burchell B, Coughtrie MWH. 1997. Genetic and environmental factors associated with variation of human xenobiotic glucuronidation and sulfation. Environ Health Perspect 105:739-747.
- *CA EPA 1998. USEPA/OPP Pesticide related database queries: OPP's registered and cancelled pesticide product database. California Environmental Protection Agency. http://www.cdpr.ca.gov/docs/epa/epamenu.htm. November 6, 1998.
- *Campbell N, Van Loon JA, Weinshilboum RM. 1987. Human liver phenol sulfotransferase: Assay conditions, biochemical properties and partial purification of isozymes of the thermostable form. Biochem Pharmacol 36:1435-1446.
- *Canonica S, Jans U, Stemmler K, et al. 1995. Transformation kinetics of phenols in water: Photosensitization by dissolved natural organic material and aromatic ketones. Environ Sci Technol 29:1822-1831.
- *Capel ID, French MR, Millburn P, et al. 1972. Fate of [¹⁴C]-phenol in various species. Xenobiotica 2:25-34.
- *Cassidy MK, Houston JB. 1984. *In vivo* capacity of hepatic and extra hepatic enzymes to conjugate phenol. Drug Metab Dispos 12:619-624.
- *Chapman DE, Namkung MJ, Juchau MR. 1994. Benzene and benzene metabolites as embryotoxic agents: Effects on cultured rat embryos. Toxicol Appl Pharmacol 128(1):129-137.
- *Chen CS, Zoltek J Jr. 1995. Organic priority pollutants in wetland-treated leachates at a landfill in central Florida. Chemosphere 31:3455-3464.
- *Chen H, Eastmond DA. 1995a. Synergistic increase in chromosomal breakage within the euchromatin induced by an interaction of the benzene metabolites phenol and hydroquinone in mice. Carcinogenesis 16:1963-1969.
- Chen H, Eastmond DA. 1995b. Topoisomerase inhibition by phenolic metabolites: A potential mechanism for benzene's clastogenic effects. Carcinogenesis 16:2301-2307.

PHENOL 207 9. REFERENCES

*Chowdhury JR, Novikoff PM, Chowdhury NR, et al. 1985. Distribution of UDPglucuronosyltransferase in rat tissue. Proc Natl Acad Sci USA 82:2990-2994.

*Chung HY. 1999. Volatile components in fermented soybean (*Glycine max*) curds. J Agric Food Chem 47:26902697.

*Ciranni R, Barale R, Marrazzini A, et al. 1988. Benzene and the genotoxicity of its metabolites. I. Transplacental activity in mouse fetuses and in their dams. Mutat Res 208:61-67.

*Clark TP, Piskin R. 1977. Chemical quality and indicator parameters for monitoring landfill leachate in Illinois. Environ Geol 1:329-340.

*Clewell HJ, III, Andersen ME. 1985. Risk assessment extrapolations and physiological modeling. Toxicol Ind Health 1:111-113.

*CMA. 1998. Two-week (ten day) inhalation toxicity and two-week recovery study of phenol vapor in the rat. Chemical Manufacturers Association. Submitted to U.S. Environmental Protection Agency under TSCA Section 4. OTS0559328.

*CMR. 2005. Phenol: Chemical Profile. Chemical Market Reporter, 34-35. May 23-29, 2005.

Coan ML, Baggs RB, Bosmann HB. 1982. Demonstration of direct toxicity of phenol on kidney. Res Commun Chem Pathol Pharmacol 36:229-239.

*Cole RH, Frederick RE, Healy RP, et al. 1984. Preliminary findings of the priority pollutant monitoring project of the nationwide urban runoff program. J Water Pollut Contr Fed 56:898-908.

*Conning DM, Hayes MJ. 1970. The dermal toxicity of phenol: An investigation of the most effective first-aid measures. Br J Ind Med 27:155-159.

Constan AA, Yang RSH, Baker DC, et al. 1995. A unique pattern of hepatocyte proliferation in F344 rats following long-term exposures to low levels of a chemical mixture of groundwater contaminants. Carcinogenesis 16:303-310.

*CPSC. 2005. Hazardous substances and articles: Administration and enforcement regulations. Substances named in the Federal Caustic Poison Act. Washington, DC: Consumer Product Safety Commission. Code of Federal Regulations. 15 CFR 1500.129. http://www.access.gpo.gov/nara/cfr/cfrtable-search.html#page1. March 08, 2006.

*Crawford DW, Bonnevie NC, Wenning RJ. 1995. Sources of pollution and sediment contamination in Newark Bay, New Jersey. Ecotoxicol Environ Safety, 30:85-100.

*Crebelli R, Conti G, Carere A. 1987. On the mechanism of mitotic segregation induction in *Aspergillus nidulans* by benzene hydroxy metabolites. Mutagenesis 2:235-238.

*Cronin TD, Brauer RO. 1949. Death due to phenol contained in foille. JAMA 139:777-778.

*Cronn DR, Charlson RJ, Knights RL, et al. 1977. A survey of the molecular nature of primary and secondary components of particles in urban air by high-resolution mass spectrometry. Atmos Environ 11:929-937.

PHENOL 208 9. REFERENCES

- *Dalin NM, Kristoffersson R. 1974. Physiological effects of a sublethal concentration of inhaled phenol on the rat. Ann Zool Fenn 11:193-199.
- *Darisimall. 2006. Sore throat lozenges and sprays. http://store.darisimall.com/sothlosp.html. July 27, 2006.
- *Davies MI, Lunte CE. 1996. Simultaneous microdialysis sampling from multiple sites in the liver for the study of phenol metabolism. Life Sci 59:1001-1013.
- *Davis EM, Murray HE, Liehr JG, et al. 1981. Basic microbial degradation and chemical byproducts of selected organic compounds. Water Res 15:1125-1127.
- *De Ceaurriz JC, Micillino JC, Bonnet P, et al. 1981. Sensory irritation caused by various industrial airborne chemicals. Toxicol Lett (Amst) 9:137-144.
- *Deichmann WB. 1944. Phenol studies. V. The distribution, detoxification, and excretion of phenol in the mammalian body. Arch Biochem 3:345-355.
- *Deichmann WB, Keplinger ML. 1981. Phenols and phenolic compounds. In: Clayton GD, Clayton FE, eds. Patty's industrial hygiene and toxicology, 3rd ed. New York, NY: John Wiley and Sons, Inc., 2567-2627.
- *Deichmann WB, Witherup S. 1944. Phenol studies. VI: The acute and comparative toxicity of phenol and *o*-, *m*-, and *p*-cresols for experimental animals. J Pharmacol Exp Ther 80:233-240.
- *Deichmann WB, Kitzmiller KV, Witherup BS. 1944. Phenol studies. VII. Chronic phenol poisoning, with special reference to the effects upon experimental animals of the inhalation of phenol vapor. Am J Clin Pathol 14:273-277.
- *Delfino JJ, Dube DJ. 1976. Persistent contamination of ground water by phenol. J Environ Sci Health A11:345-355.
- Della Pietra G, Illiano G, Soscia M. 1967. Glycuronic acid and glycuronamide detoxicating activity. Biochem Pharmacol 16:1571-1573.
- *Demerec M, Bertran G, Flint J. 1951. A survey of chemicals for mutagenic action on *E. coli*. American Naturalist 85:119-136.
- *Di Corcia A, Bellioni A, Madbouly MD, et al. 1996. Trace determination of phenols in natural waters. Extraction by a new graphitized carbon black cartridge followed by liquid chromatography and reanalysis after phenol derivatization. J Chromatogr 733:383-393.
- *Doan HM, Keith L, Shennan AT. 1979. Phenol and neonatal jaundice. Pediatrics 64:324-325.
- *DOE. 1997. Method OM100R: Semivolatile organic compounds in multimedia samples by capillary column ion trap MS. Idaho Falls, ID: U.S. Department of Energy, National Analytical Management Program. http://web1.er.usgs.gov/nemi/method_pdf/4795.pdf. April 18, 2006.
- *DOE. 1987. Uptake and fate of phenol aniline and quinoline in terrestrial plants. In: Gray RH, ed. Health and environmental research on complex organic mixtures. U.S. Department of Energy, 631-641.

PHENOL 209 9. REFERENCES

- *Dosemeci M, Blair A, Stewart PA, et al. 1991. Mortality among industrial workers exposed to phenol. Epidemiology 2:188-193.
- *Douglas CC. 1972. Gas chromatographic determination of phenolic compounds in drug preparations: Collaborative study. J Assoc Off Anal Chem 55:610-612.
- Ducis I, Norenberg L-OB, Norenberg MD. 1990. Effect of phenol and sodium octanoate on the astrocyte benzodiazepine receptor. Brain Res 514:349-351.
- *Dumont JP, Adda J. 1978. Occurrence of sesquiterpenes in mountain cheese volatiles. J Agric Food Chem 26:364-367.
- *Durback-Morris LF, Scharman EJ. 1999. Accidental intranasal administration of phenol. Vet Hum Toxicol 41(3):157.
- *Eastmond DA, Smith MT, Ruzo LO, et al. 1986. Metabolic activation of phenol by human myeloperoxidase and horseradish peroxidase. Mol Pharmacol 30:674-679.
- *Edwards RD, Jurvelin J, Saarela K, et al. 2001. VOC concentrations measured in personal samples and residential indoor, outdoor and workplace microenvironments in EXPOLIS- Helsinki, Finland. Atmos Environ 35(27):4829-4841.
- *Edwards VT, Jones BC, Hutson DH. 1986. A comparison of the metabolic fate of phenol, phenyl glucoside and phenyl 6-*O*-malonyl-glucoside in the rat. Xenobiotica 16:801-807.
- *Ehrlich GG, Goelitz DF, Godsy EM, et al. 1982. Degradation of phenolic contaminants in ground water by anaerobic bacteria: St. Louis Park, MN. Ground Water 20:703-710.
- *Eichelberger JW, Kerns EH, Olynyk P, et al. 1983. Precision and accuracy in the determination of organics in water by fused silica capillary column gas chromatography/mass spectrometry and packed column gas chromatography/mass spectrometry. Anal Chem 55:1471-1479.
- *Elder VA, Proctor BL, Hites RA. 1981. Organic compounds found near dump sites in Niagara Falls, NY. Environ Sci Technol 15:1237-1243.
- *EPA. 1979a. Atmospheric reaction products of organic compounds. Washington, DC: U.S. Environmental Protection Agency, Office of Chemical Control, Office of Toxic Substances, 20, 46.
- *EPA. 1979b. Microbial degradation of organochlorine compounds in estuarine waters and sediments. In: Proceedings Workshop: Microbial Degradation Pollution Marine Environment, 1978. Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development. EPA600979012.
- *EPA. 1979c. Source assessment: Manufacture of acetone and phenol from cumene. Dayton, OH. U.S. Environmental Protection Agency. EPA600279019D. PB80150592, 500.
- *EPA. 1980. Ambient water quality criteria document for phenol. Washington, DC: U.S. Environmental Protection Agency. EPA440580001A. PB81117772.
- *EPA. 1981a. Exposure and risk assessment for phenol (revised). Washington, DC: U.S. Environmental Protection Agency, Office of Water Regulations and Standards. PB85221695, 114-116.

PHENOL 210 9. REFERENCES

- *EPA. 1981b. Treatability manual. Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development. EPA600282001A, I.S. 1-1-1-5.
- *EPA. 1982. Test methods. Methods for organic chemical analysis of municipal and industrial wastewater. Method No. 604 and 625. Cincinnati, OH: U.S. Environmental Protection Agency.
- *EPA. 1986a. Research and development. Reference values for risk assessment. Prepared by the U.S. Environmental Protection Agency. Environmental Criteria and Assessment Office, Office of Health and Environmental Assessment, Cincinnati, OH, for the Office of Solid Waste.
- *EPA. 1986b. Method Nos. 8250 and 8270: Test methods for evaluating solid waste. SW-846, Vol. IB: Laboratory manual: Physical/chemical methods. 3rd ed. U.S. Washington, DC: Environmental Protection Agency, Office of Solid Waste and Emergency Response.
- *EPA. 1987. Health and environmental effects profile for phenol. Cincinnati, OH: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response.
- *EPA. 1988. Computer printout (CIS): 1977 production statistics for chemicals in the Federal Register. 1979. Petition to remove ethylbenzene, phenol, 2,4-dichlorophenol, 2,4,5- trichlorophenol and pentachlorophenol from the 307(a)(1) list of toxic pollutants. U.S. Environmental Protection Agency. Fed Regist 44:64555-64559.
- *EPA. 1994a. Methods for derivation of inhalation reference concentrations and application of inhalation dosimetry. Washington, DC: U.S. Environmental Protection Agency. Office of Research and Development. EPA6008900066F.
- *EPA. 1994b. Semivolatile organic compounds by gas chromatography/mass spectrometry. Method 8250A. In: Test methods for evaluating solid waste. SW-846. Washington, DC: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response.
- *EPA. 1994c. Semivolatile organic compounds by gas chromatography/mass spectrometry: Capillary column technique. Method 8270B. In: Test methods for evaluating solid waste. SW-846. Washington, DC: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response.
- *EPA. 1998. Method 8070D: Semivolatile organic compounds by GC/MS. Draft update IVA of SW-846 on-line. U.S. Environmental Protection Agency, Office of Solid Waste. http://www.epa.gov/epaoswer/hazwaste/test/pdfs/8270d.pdf. April 18, 2006
- *EPA. 1999. Evaluation and application of methods for estimating children's exposure to persistent organic pollutants in multiple media. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Research and Development. PB99134942.
- *EPA. 2000a. Method 528: Determination of phenols in drinking water by solid phase extraction and capillary column gas chromatography/mass spectrometry (GC/MS) Methods for the determination of organic and inorganic compounds in drinking water, Volume 1. Washington, DC: U.S. Environmental Protection Agency. EPA815R00014. http://nepis.epa.gov/pubtitleOW.htm. April 18, 2006.
- *EPA. 2000b. Method 8041A: Phenols in aqueous and non-aqueous samples by capillary GC/FID or GC/ECD and single or dual columns. Draft update IVB of SW-846 on-line. U.S. Environmental Protection Agency, Office of Solid Waste. http://www.epa.gov/epaoswer/hazwaste/test/pdfs/8041a.pdf. April 18, 2006.

PHENOL 211 9. REFERENCES

- *EPA. 2000c. Benchmark dose technical guidance document. Washington, DC: U.S. Environmental Protection Agency. EPA630R00001.
- *EPA. 2001a. Method 604: Phenols. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR Part 136, Appendix A. http://web1.er.usgs.gov/nemi/method_pdf/4789.pdf. April 18, 2006.
- *EPA. 2001b. Method 1625: Semivolatile organic compounds by isotope dilution GCMS. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR Part 136, Appendix A. http://web1.er.usgs.gov/nemi/method_pdf/4686.pdf. April 18, 2006.
- *EPA. 2001c. Method 635: Base/neutrals and acids. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 136, Appendix A. http://web1.er.usgs.gov/nemi/method_pdf/4714.pdf. April 20, 2006.
- *EPA. 2002. Toxicological review of phenol. In support of summary information on the Integrated Risk Information System (IRIS). Washington, DC: U.S. Environmental Protection Agency. EPA635R02006.
- *EPA. 2003. National primary drinking water regulations. Washington, DC: U.S. Environmental Protection Agency, Office of Ground Water and Drinking Water. EPA816F03016. http://epa.gov/safewater/mcl.html. March 07, 2006.
- *EPA. 2004. Drinking water standards and health advisories. Washington, DC: U.S. Environmental Protection Agency, Office of Water. EPA822R04005. http://epa.gov/waterscience/criteria/drinking/. March 07, 2006.
- *EPA. 2005. Toxic chemical release inventory reporting forms and instructions: Revised 2004 version. Section 313 of the Emergency Planning and Community Right-to-Know Act (Title III of the Superfund Amendments and Reauthorization Act of 1986). U.S. Environmental Protection Agency. Office of Environmental Information. EPA260B05001.
- *EPA. 2006a. Acute exposure guideline levels (AEGLs). Washington, DC: U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics. http://epa.gov/oppt/aegl/chemlist.htm. March 22, 2006.
- *EPA. 2006b. Designated as hazardous substances in accordance with Section 311(b)(2)(A) of the Clean Water Act. Washington, DC: U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 116.4. http://www.epa.gov/epacfr40/chapt-1-toc.htm. March 07, 2006.
- *EPA. 2006c. Effluent guidelines and standards. Toxic pollutants. Washington, DC: U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 401.15. http://www.epa.gov/epacfr40/chapt-1.info/chi-toc.htm. March 08, 2006.
- *EPA. 2006d. Hazardous air pollutants. Clean Air Act. Washington, DC: U.S. Environmental Protection Agency. United States Code 42 USC 7412. http://www.epa.gov/ttn/atw/orig189.html. March 07, 2006.
- *EPA. 2006e. Identification and listing of hazardous waste. Washington, DC: U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 261, Appendix VIII. http://www.epa.gov/epacfr40/chapt-1.info/chi-toc.htm. March 07, 2006.

PHENOL 212 9. REFERENCES

- *EPA. 2006f. National recommended water quality criteria. Washington, DC: U.S. Environmental Protection Agency, Office of Water, Office of Science and Technology. http://www.epa.gov/waterscience/criteria/wqcriteria.html. March 07, 2006.
- *EPA. 2006g. Reportable quantities of hazardous substances designated pursuant to Section 311 of the Clean Water Act. Washington, DC: U.S. Environmental Protection Agency. Code of Federal Regulations 40 CFR 117.3. http://www.epa.gov/epacfr40/chapt-1.info/chi-toc.htm. March 08, 2006.
- *EPA. 2006h. Superfund, emergency planning, and community right-to-know programs. Designation, reportable quantities, and notifications. Washington, DC: U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 302.4. http://www.epa.gov/epacfr40/cha/chapt-1.info/chi-toc.htm. March 08, 2006.
- *EPA. 2006i. Superfund, emergency planning, and community right-to-know programs. Extremely hazardous substances and their threshold planning quantities. Washington, DC: U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 355, Appendix A. http://www.epa.gov/epacfr40/chapt-1.info/chi-toc.htm. March 08, 2006.
- *EPA. 2006j. Superfund, emergency planning, and community right-to-know programs. Toxic chemical release reporting. Washington, DC: U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 372.65. http://www.epa.gov/epacfr40/chapt-1.info/chi-toc.htm. March 08, 2006.
- *EPA. 2006k. Toleranes and exemptions from tolerances for pesticide chemicals in food. Aluminum sulfate. Phenol. Washington, DC: U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 180.920. http://www.epa.gov/epacfr40/chapt-1.info/chi-toc.htm. March 08, 2006.
- *EPA. 2006l. Tolerances and exemptions from tolerances for pesticide chemicals in food. Phenol. Aluminum oxide. Washington, DC: U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 180.930. http://www.epa.gov/epacfr40/chapt-1. March 08, 2006.
- *EPA. 2006m. Water quality standards. Toxics criteria for those states not complying with Clean Water Act Section 303(c)(2)(B). Washington, DC: U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 131.36. http://www.epa.gov/epacfr40/chapt-1.info/chi-toc.htm. March 08, 2006.
- *EPA. 2006n. Phenol. Modernized STORET system. Regular results by geographic location (stormodb). Characteristic search by CAS number. U.S. Environmental Protection Agency. http://www.epa.gov/storet/dbtop.html. April 04, 2006.
- *Erexson GL, Wilmer JL, Kligerman AD. 1985. Sister chromatid exchange induction in human lymphocytes exposed to benzene and its metabolites *in vitro*. Cancer Res 45:2471-2477.
- *FDA. 2005. Beverages. Bottled water. Washington, DC: U.S. Food and Drug Administration. Code of Federal Regulations. 21 CFR 165.110. http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm. March 08, 2006.
- *FDA. 2006. Everything added to food in the United States. Food and Drug Administration. http://vm.cfsan.fda.gov/~dms/eafus.html. April 11, 2006.
- *FEDRIP. 2006. Phenol. Federal Research in Progress database. Springfield, VA: National Technical Information Service.

PHENOL 213 9. REFERENCES

- *Fielding M, Gibson TM, McLoughlin K, et al. 1981. Organic micropollutants in drinking water. TR-159. Medmenham, England. Water Research Center.
- *Flickinger CW. 1976. The benzenediols: Catechol, resorcinol and hydroquinone. A review of the industrial toxicology and current industrial exposure limits. Am Ind Hyg Assoc J 37:596-606.
- *Florin I, Rutberg L, Curvall M, et al. 1980. Screening of tobacco smoke constituents for mutagenicity using the Ames' test. Toxicology 18:219-232.
- *Foman SJ. 1966. Body composition of the infant. Part I: The male reference infant. In: Falkner F, ed. Human development. Philadelphia, PA: WB Saunders, 239-246.
- *Foman SJ, Haschke F, Ziegler EE, Nelson SE. 1982. Body composition of reference children from birth to age 10 years. Am J Clin Nutr 35:1169-1175.
- *Forum for Scientific Excellence, Inc. 1990. Index of hazardous contents of commercial products in schools and colleges. Philadelphia, PA: JB Lippincott Co., 97, 109, 110, 145, 179.
- *Foxall PJD, Bending MR, Gartland KI, et al. 1989. Acute renal failure following accidental cutaneous absorption of phenol: Application of NMR urinalysis to monitor the disease process. Human Toxicol 9:491-496.
- *Freitag D, Lay JP, Korte F. 1984. Environmental hazard Test results as related to structures and transplantation into the environment. In: Kaiser, KLE, ed. Quantitative Structure Activity Relationships Environmental Toxicology Proceedings Workshop. Boston, MA: D. Reidel Publishing Co., 111-136.
- *French MR, Bababunmi EA, Golding RR et al. 1974. The conjugation of phenol, benzoic acid, 1-naphthylacetic acid and sulfadimethoxine in the lion, civet, and genet. FEBS Lett 46:134-137.
- *Fuhro R, Fromm D. 1978. Effects of compounds chemically related to salicylate on isolated antral mucosa of rabbits. Gastroenterology 75:661-667.
- *Gardner W, Cooke EI, Cooke RWI. 1978. Handbook of chemical synonyms and trade names. Boca Raton, FL: CRC Press, 150, 554.
- *Ghantous H, Danielsson BR. 1986. Placental transfer and distribution of toluene, xylene and benzene, and their metabolites during gestation in mice. Biol Res Pregnancy Perinatol 7:98-105.
- *Gingell R, O'Donoghue JO, Staab RJ, et al. 2001. Phenol and phenolics. In: Bingham E, Cohrssen B, Powell Ch, eds. Patty's toxicology. 5th ed. New York, NY: John Wiley & Sons, 383-398.
- *Giwerceman A, Carlsen E, Keiding N, et al. 1993. Evidence for increasing incidence of abnormalities of the human testis: A review. Environ Health Perspect Suppl 101(2):65-71.
- *Gocke E, King MT, Eckhardt K, et al. 1981. Mutagenicity of cosmetics ingredients licensed by the European communities. Mutat Res 90:91-109.
- *Goerlitz DF, Troutman DE, Gody EM, et al. 1985. Migration of wood-preserving chemical in contaminated groundwater in a sand aquifer at Pensacola, Florida. Environ Sci Technol 19:955-961.

PHENOL 214 9. REFERENCES

- *Goldfrank LR, Flomenbaum NE, Lewin NA, et al. 2002. Phenol. In: Goldfrank's toxicologic emergencies. 7th ed. New York, NY: McGraw-Hill, 1283-1284.
- *Goncharuk VV, Milyukin MV. 1999. Evaluation of contamination level of Dnieper River Basin by organic and inorganic toxicants. In: Baveye, PH, Block JC, Goncharuk VV eds. Bioavailability of organic xenobiotics in the environment. Netherlands: Kluwer Academic Publishers, 35-56.
- *Gossett RW, Brown DA, Young DR. 1983. Predicting the bioaccumulation of organic compounds in marine organisms using octanol/water partition coefficients. Marine Pollut Bull 14:387-392.
- Gould JP, Weber WJ, Jr. 1976. Oxidation of phenols by ozone. J Water Pollut Control Fed 48:47-60.
- *Graedel TE. 1978. Chemical compounds in the atmosphere. New York, NY Academic Press, 256.
- *Griffiths GJ. 1973. Fatal acute poisoning by intradermal absorption of phenol. Med Sci Law 13:46-48.
- *Gross BG. 1984. Cardiac arrhythmias during phenol face peeling. Plastic Reconst Surg 73:590-594.
- *Guerin MR, Jenkins RA, Tomkins BA. 1992. The chemical nature of environmental tobacco smoke: Composition and measurement. Chelsea, MD: Lewis Publishers.
- *Gut I, Nedelcheva V, Soucek P, et al. 1996. Cytochromes P450 in benzene metabolism and involvement of their metabolites and reactive oxygen species in toxicity. Environ Health Perspect 104:1211-1218.
- *Guzelian PS, Henry CJ, Olin SS. 1992. Similarities and differences between children and adults: Implications for risk assessment. Washington, DC: International Life Sciences Institute Press, 1-285.
- *Haddad LM, Shannon MW, and Winchester JF. 1998. Phenol and related agents. In: Clinical management of poisoning and drug overdose. 3rd ed. Philadelphia, PA: WB Saunders Company, 956-960.
- *Haider K, Jagnow G, Kohnen R, et al. 1974. [Degradation of chlorinated benzol, phenol and cyclohexane derivatives by soil bacteria that utilize benzol and phenol under aerobic conditions.] Arch Microbiol 96:183-200. (German)
- *Handson PD, Hanrahan PD. 1983. A rapid gas chromatographic method for the determination of free phenol in blood. J Agric Food Chem 31:447-448.
- *Hawley GG. 1981. The condensed chemical dictionary. 10th ed. New York, NY: Van Nostrand Reinhold Co, 796.
- *Haworth S, Lawler T, Mortelmans K, et al. 1983. *Salmonella* mutagenicity test results for 250 chemicals. Environ Mutagen Suppl 1:3-142.
- *Hawthorne SB, Sievers RE. 1984. Emission of organic air pollutants from shale oil wastewaters. Environ Sci Technol 18:483-490.
- HazDat. 2006. Phenol. HazDat Database: ATSDR's Hazardous Substance Release and Health Effects Database. Atlanta, GA: Agency for Toxic Substances and Disease Registry. http://www.atsdr.cdc.gov/hazdat.html. April 06, 2006.

PHENOL 215 9. REFERENCES

*Heaton GD, Renwick AG. 1991. The effects of high dietary concentrations of sodium saccharin on in vivo metabolism of xenobiotics in rats. Food Chem Toxicol 29(5):305-312.

*Heikkila PR, Hameila M, Pyy L, et al. 1987. Exposure to creosote in the impregnation and handling of impregnated wood. Scand J Work Environ Health 13:431-437.

*Heller VG, Pursell L. 1938. Phenol-contaminated waters and their physiological action. J Pharmacol Exp Ther 63:99-107.

Hendrickson HP, Sahafayan M, Bell MA, et al. 1994. Relationship of flavonoid oxidation potential and effect on rat hepatic microsomal metabolism of benzene and phenol. J Pharm Biomed Anal 12:335-341.

Henschler R, Glatt HR. 1995. Induction of cytochrome P4501A1 in haemopoietic stem cells by hydroxylated metabolites of benzene. Toxicol *In Vitro* 9:453-457.

*Hernberg S, Kurppa K, Ojajārvi J, et al. 1983. Congenital malformations and occupational exposure to disinfectants: A case-referent study. Scan J Work Environ Health 9:55.

*Hinkel VGK, Kintzel HW. 1968. Phenolvergiftungen bei neugeborenen durch kutane resorption. Dtsch Gesundheitsw 23:2420-2422.

*Hiser MF, Kropscott BE, McGuirk RJ, et al. 1994. Pharmacokinetics metabolism and distribution of 14C-Phenol in Fischer 344 rats after gavage, drinking water and inhalation exposure. Dow Chemical Company. Submitted to U.S. Environmental Protection Agency under TSCA Section 8D. Study ID: K-002727-022. OTS0557473.

*Ho C, Lee KN, Jin QZ. 1983. Isolation and identification of volatile flavor compounds in fried bacon. J Agric Food Chem 31:336-342.

*Hoel DG, Davis DL, Miller AB, et al. 1992. Trends in cancer mortality in 15 industrialized countries, 1969-1986. J Natl Cancer Inst 84(5):313-320.

*Hoff RM, Chan K. 1987. Measurement of polycyclic aromatic hydrocarbons in the air along the Niagara River. Environ Sci Technol 21:556-561.

*Hoffman GM, Dunn BJ, Morris CR, et al. 2001. Two-week (ten-day) inhalation toxicity and two-week recovery study of phenol vapor in the rat. Int J Toxicol 20:45-52.

*Hoffmann MJ, Ji S, Hedli CC, et al. 1999. Metabolism of [¹⁴C]phenol in isolated perfused mouse liver. Toxicol Sci 49:40-47.

Holland AJ, Youssef M. 1978. A complication of subarachnoid phenol blockade. Anaesthesia 34:260-262.

*Horch R, Spilker G, Stark GB. 1994. Phenol burns and intoxications. Burns 20:45-50.

*Hoshika Y, Nihei Y, Muto G. 1981. Pattern display for characterization of trace amounts of odorants discharged from nine odor sources. Analyst (London) 106:1187-1202.

PHENOL 216 9. REFERENCES

- *Hotchkiss SAM, Hewitt P, Caldwell J. 1992. Percutaneous absorption of nicotinic acid, phenol, benzoic acid and triclopyr butoxyethyl ester through rat and human skin *in vitro*: Further validation of an *in vitro* model by comparison with *in vivo* data. Food Chem Toxicol 30:891-899.
- *HSDB. 2006. Phenol. Hazardous Substances Data Bank. National Library of Medicine. http://toxnet.nlm.nih.gov. April 06, 2006.
- *Hsieh G-C, Sharma RP, Parker RDR, et al. 1992. Immunological and neurobiochemical alterations induced by repeated oral exposure of phenol in mice. Eur J Pharmacol 228:107-114.
- *Huang Z, Zhou W, Zhou C, et al. 2003. Determination of semivolatile compounds in drinking water by tandem mass spectrometric detection. Bull Environ Contam Toxicol 71(5):1026-1033.
- *Hughes MF, Hall LL. 1995. Disposition of phenol in rat after oral, dermal, intravenous, and intratracheal administration. Xenobiotica 25:873-883.
- *Humphrey MJ, Filer CW, Jeffery DJ, et al. 1980. The availability of carfecillin and its phenol moiety in rat and dog. Xenobiotica 10:771-778.
- *Hunter DM, Timerding BL, Leonard RB, et al. 1992. Effects of isopropyl alcohol, ethanol, and polyethylene glycol/industrial methylated spirits in the treatment of acute phenol burns. Ann Emerg Med 21:1303-1307.
- *IARC. 1986. IARC Monographs on the evaluation of the carcinogenic risk of chemicals to humans. Vol. 38. Tobacco smoking. Lyon, France: World Health Organization, International Agency for Research on Cancer, 104-105.
- *IARC. 1989. IARC Monographs on the evaluation of carcinogenic risk of chemicals to humans, Vol 47; Some organic solvents, resin monomers and related compounds, pigments and occupational exposures in paint manufacturing and painting. Lyon, France: World Health Organization, International Agency for Research on Cancer, 263-287.
- *IARC. 2004. Overall evaluations of carcinogenicity to humans: As evaluated in IARC Monographs volumes 1-82 (at total of 900 agents, mixtures and exposures). Lyon, France: International Agency for Research on Cancer. http://www.cie.iarc.fr/monoeval/crthall.html. March 08, 2006.
- *Inoue H, Yokota H, Taniyama H, et al. 1999. 1-Naphthol β -D-glucuronide formed intraluminaly in rat small intestine mucosa and absorbed into the colon. Life Sci 65(15):1579-1588.
- *IRIS. 2006. Phenol. Washington, DC: Integrated Risk Information System. U.S. Environmental Protection Agency. http://www.epa.gov/iris/subst/index.html. March 08, 2006.
- *Itoh M. 1995. The role of brain acetylcholine in phenol-induced tremor in mice. Arch Oral Biol 40:365-372.
- *Iwasaki K, Shiraga T, Takeshita K, et al. 1993. Perinatal development of amine, alcohol and phenol sulfoconjugations in the rat. Res Commun Chem Pathol Pharmacol 81:183-190.
- *Jansson T, Curvall M, Hedin A, et al. 1986. *In vitro* studies of biological effects of cigarette smoke condensate. II. Induction of sister chromatid exchanges in human lymphocytes by weakly acidic, semivolatile constituents. Mutat Res 169:129-139.

PHENOL 217 9. REFERENCES

- *Jarvis SN, Straube RC, Williams ALJ, et al. 1985. Illness associated with contamination of drinking water supplies with phenol. Br Med J 290:1800-1802.
- *Jay K, Stieglitz L. 1995. Identification and quantification of volatile organic components in emissions of waste incineration plants. Chemosphere 30:1249-1260.
- *Johansen SS, Hansen AB, Mosboek H, et al. 1997. Identification of heteroaromatic and other organic compounds in ground water at creosote-contaminated sites in Denmark. Ground Water Monit Remed 7:106-115.
- *Johanson CE. 1980. Permeability and vascularity of the developing brain: Cerebellum vs. cerebral cortex. Brain Res 190:3-16.
- *Jungclaus GA, Lopez-Avila V, Hites RA. 1978. Organic compounds in an industrial waste water: A case study of their environmental impact. Environ Sci Technol 12:88-96.
- *Kaiser HE. 1967. Cancer-promoting effects of phenols in tea. Cancer 20:614-616.
- *Kamijo Y, Soma K, Fukuda M, et al. 1999. Rabbit syndrome following phenol ingestion. Clin Toxicol 37:509-511.
- *Kao J, Bridges JW, Faulkner JK. 1979. Metabolism of [¹⁴C]phenol by sheep, pig, rat. Xenobiotica 9:141-147.
- *Kauppinen TP, Partanen TJ, Nurminen MM. 1986. Respiratory cancers and chemical exposures in the wood industry: A nested case-control study. Br J Ind Med 43:84-90.
- *Kavlock RJ. 1995. Structure-activity relationships in the developmental toxicity of substituted phenols: *In vivo* effects. Teratology 41:43-59.
- Kawamoto T, Koga M, Oyama T, et al. 1996. Habitual and genetic factors that affect urinary background levels of biomarkers for organic solvent exposure. Arch Environ Contam Toxicol 30:114-120.
- *Keith LH. 1976. Identification of organic compounds in unbleached treated Kraft paper mill wastewaters. Environ Sci Technol 10:555-564.
- *Kenyon EM, Seeley ME, Janszen D, et al. 1995. Dose-, route-, and sex-dependent urinary excretion of phenol metabolites in B6C3F₁ mice. J Toxicol Environ Health 44:219-233.
- *Kim D-H, Lee S-K, Chun B-Y, et al. 1994. Illness associated with contamination of drinking water supplies with phenol. J Korean Med Sci 9:218-223.
- Kim HJ, Cho JH, Klaassen CD. 1995. Depletion of hepatic 3'-phosphoadenosine 5'-phosphosulfate (PAPS) and sulfate in rats by xenobiotics that are sulfated. J Pharmacol Exp Ther 275:654-658.
- *Kincannon DF, Stover EL, Nichols V, et al. 1983. Removal mechanisms for toxic priority pollutants. J Water Pollut Control Fed 55:157-163.

PHENOL 218 9. REFERENCES

- *Kobayashi K, Akitake H, Manadge K. 1979. Relation between toxicity and accumulation of various chlorophenols in goldfish. Bull Jap Soc Sci Fish 45:173-175.
- *Kolachana P, Subrahmanyam VV, Meyer KB, et al. 1993. Benzene and its phenolic metabolites produce oxidative DNA damage in HL60 cells *in vitro* and in the bone marrow *in vivo*. Cancer Res 53(5):1023-1026.
- *Komori M, Nishio K, Kitada M, et al. 1990. Fetus-specific expression of a form of cytochrome P-450 in human liver. Biochemistry 29:4430-4433.
- *Konasewich D, Traversy W, Zar H. 1978. Status report on organic and heavy metal contaminants in the Lake Erie, Michigan, Huron and Superior Basins. Windsor, Ontario: International Joint Commission Great Lakes Water Quality Board, 161.
- *Koop DR, Laethem CL, Schnier GG. 1989. Identification of ethanol-inducible P450 isozyme 3a (P450IIE1) as a benzene and phenol hydroxylase. Toxicol Appl Pharmacol 98:278-288.
- *Koster H, Halsema I, Scholtens E, et al. 1981. Dose-dependent shifts in the sulfation and glucuronidation of phenolic compounds in the rat in vivo and in isolated hepatocytes. The role of saturation of phenolsulfotransferase. Biochem Pharmacol 30:2569-2575.
- *Kostiainen R. 1995. Volatile organic compounds in the indoor air of normal and sick houses. Atmos Environ 29:693-702.
- *Kothare PA, Zimmerman CL. 2002. Intestinal metabolism: The role of enzyme localization in phenol metabolite kinetics. Drug Metab Dispos 30(5):586-594.
- *Kot-Wasik A, Kartanowicz R, Dabrowski D, et al. 2004. Determination of chlorophenols and phenoxyacid herbicides in the Gulf of Gdansk, southern Baltic Sea. Bull Environ Contam Toxicol 73:511-518.
- *Krishnan K, Andersen ME. 1994. Physiologically-based pharmacokinetic modeling in toxicology. In: Hayes W, ed. Principles and methods of toxicology. 3rd ed. New York, NY: Raven Press, Ltd.
- *Krishnan K, Andersen ME, Clewell HJ, III, et al. 1994. Physiologically-based pharmacokinetic modeling of chemical mixtures. In: Yang RSA, ed. Toxicology of chemical mixtures. New York, NY: Academic Press, 399-437.
- *Kubo T, Urano K, Utsumi H. 2002. Mutagenicity characteristics of 255 environmental chemicals. J Health Sci 48(6):545-554.
- *Kuwata K, Uebori M, Yamazaki Y. 1980. Determination of phenol in polluted air as p-nitrobenzeneazophenol derivative by reversed phase high performance liquid chromatography. Anal Chem 52:857-860.
- *Langford CP, Bartlett R, Haddad LM. 1998. Phenol and related agents. In: Haddad LM, Shannon MW, Winchester JF, eds. Clinical management of poisoning and drug overdose. Philadelphia, PA: Saunders, 956-960.
- *Lebedev AT, Poliakova OV, Karakhanova NK, et al. 1998. The contamination of birds with organic pollutants in the Lake Baikal region. Sci Total Environ 212:153-162.

PHENOL 219 9. REFERENCES

- *Leeder JS, Kearns, GL. 1997. Pharmacogenetics in pediatrics: Implications for practice. Ped Clin North America 44:55-77.
- *Legathe A, Hoener B-A, Tozer TN. 1994. Pharmacokinetic interaction between benzene metabolites, phenol and hydroquinone, in B6C3F₁ mice. Toxicol Appl Pharmacol 124:131-138.
- *Leuenberger C, Ligocki MP, Pankow JF. 1985. Trace organic compounds in rain. 4. Identities, concentrations and scavenging mechanisms for phenols in urban air and rain. Environ Sci Technol 19:1053-1058.
- *Leung H. 1993. Physiologically-based pharmacokinetic modeling. In: Ballantyne B, Marrs T, Turner P, eds. General and applied toxicology. Vol. I. New York, NY: Stockton Press, 153-164.
- *Lewin JF, Cleary WT. 1982. An accidental death caused by the absorption of phenol through skin. A case report. Forensic Sci Int 19:177-179.
- *Lewis RJ. 1996. Sax's dangerous properties of industrial materials. 9th ed. New York, NY: Van Nostrand Reinhold, 2630-2631.
- *Li Y, Qu M, Sun L, et al. 2005. Genotoxicity study of phenol and o-cresol using the micronucleus test and the comet assay. Toxicol Environ Chem 87(1-4):365-372.
- *Liao TF, Oehme FW. 1981. Tissue distribution and plasma protein binding of [14C] phenol in rats. Toxicol Appl Pharmacol 57:220-225.
- *Lide DR. 1993. CRC handbook of chemistry and physics. Boca Raton, FL: CRC Press, 3-376, 6-60, 16-25.
- *Lide DR, Milne GWA. 1994. Phenol. In: Handbook of data on organic compounds. Boca Raton, FL: CRC Press, 3990.
- *Ling WH, Hanninen O. 1991. Shifting from a conventional diet to an uncooked vegan diet reversibly alters fecal hydrolytic activities in humans. J Nutr 122:924-930.
- *Livingston AL. 1978. Forage plant estrogens. J Toxicol Environ Health 4:301-324.
- *Lo Dico C, Caplan YH, Levine B, et al. 1989. Phenol: Tissue distribution in a fatality. J Forensic Sci 34:1013-1015.
- *Lopes TJ, Furlong ET. 2001. Occurrence and potential adverse effects of semivolatile organic compounds in streambed sediment, United States, 1992–1995. Environ Sci Technol 20:727-737.
- *Lopez-Avila V, Northcutt R, Onstot J. et al. 1983. Determination of 51 priority organic compounds after extraction from standard reference materials. Anal Chem 55:881-889.
- *Ludzack FJ, Ettinger MB. 1960. Chemical structures resistant to aerobic biochemical stabilization. J Water Pollut Control Fed 32:1173-1200.
- *Luttke J, Levsen K, Acker K, et al. 1999. Phenols and nitrated phenols in clouds at Mount Brocken. Int J Environ Anal Chem 74:69-89.

PHENOL 220 9. REFERENCES

- *Lunte SM, Kissinger PT. 1983. Detection and identification of sulfhydryl conjugates of p-benzoquinone in microsomal incubations of benzene and phenol. Chem-Biol Interact 47:195-212.
- *Lyman WJ, Reehl WF, Rosenblatt DH. 1982. Handbook of chemical property estimation methods. Environmental behavior of organic compounds. New York, NY: McGraw-Hill Book Co., 15-9 to 15-31.
- *Mayr U, Butsch A, Schneider S. 1992. Validation of two *in vitro* test systems for estrogenic activities with zearalenone, phytoestrogens and cereal extracts. Toxicology 74:135-149.
- *McDonald JD, Zielinska B, Jujita EM, et al. 2000. Fine particle and gaseous emission rates from residential wood combustion. Environ Sci Technol 34:2080-2091.
- *McFadden SA. 1996. Phenotypic variation in xenobiotic metabolism and adverse environmental response: Focus on sulfur-dependent detoxification pathways. Toxicology 111:43-65.
- Medinsky MA. 1995. The application of physiologically based pharmacokinetic/pharmacodynamic (PBPK/PD) modeling to understanding the mechanism of action of hazardous substances. Toxicol Lett 79:185-191.
- *Medinsky MA, Kenyon EM, Schlosser PM. 1995. Benzene: A case study in parent chemical and metabolite interactions. Toxicology 105:225-233.
- *Mehta R, Hirom PC, Millburn P. 1978. The influence of dose on the pattern of conjugation of phenol and 1-naphthol in nonhuman primates. Xenobiotica 8:445-452.
- *Merliss RR. 1972. Phenol marasmus. Occup Med 14:55-56.
- *Migaszewski ZM. 1999. Determining organic compound ratios in soils and vegetation of the Holy Cross Mountains, Poland. Water Air Soil Pollut 111(1-4):123-138.
- *Mill T, Mabey W. 1985. Photodegradation in water. In: Neely WR, Blau GE, eds. Environmental exposure from chemicals. Vol. 1. Boca Raton, FL: CRC Press, 208-211.
- Miller BM, Pujadas E, Gocke E. 1995. Evaluation of the micronucleus test *in vitro* using Chinese hamster cells: Results of four chemicals weakly positive in the *in vivo* micronucleus test. Environ Mol Mutagen 26:240-247.
- *Miller JJ, Powell GM, Olavesen AH, et al. 1976. The toxicity of dimethoxyphenol and related compounds in the cat. Toxicol Appl Pharmacol 3:47-57.
- *Miyagawa M, Takasawa H, Sugiyama A, et al. 1995. The *in vivo-in vitro* replicative DNA synthesis (RDS) test with hepatocytes prepared from male B6C3F₁ mice as an early prediction assay for putative nongenotoxic (Ames-negative) mouse hepatocarcinogens. Mutat Res 343:157-183.
- *Moreira dos Santos CY, de Almeida Azevedo D, Radler de Aquino Neto F. 2004. Atmospheric distribution of organic compounds from urban areas near a coal-fired power station. Atmos Environ 38(9):1247-1257.
- Morgan RJ, Steller PH. 1994. Acute paraplegia following intrathecal phenol block in the presence of occult epidural malignancy. Anaesthesia 49:142-144.

PHENOL 221 9. REFERENCES

- *Morimoto K, Wolff S. 1980. Increase of sister chromatid exchanges and perturbations of cell division kinetics in human lymphocytes by benzene metabolites. Cancer Res 40:118-1193.
- *Morimoto K, Wolff S, Koizumi A. 1983. Induction of sister-chromatid exchanges in human lymphocytes by microsomal activation of benzene metabolites. Mutat Res 119:355-360.
- *Morrison JE, Matthews D, Washington R, et al. 1991. Phenol motor point blocks in children: Plasma concentrations and cardiac dysrhythmias. Anesthesiology 75:359-362.
- *Morselli PL, Franco-Morselli R, Bossi L. 1980. Clinical pharmacokinetics in newborns and infants. Clin Pharmacokin 5:485-527.
- *Moser VC, Cheek BM, MacPhail RC. 1995. A multidisciplinary approach to toxicological screening: III. Neurobehavioral toxicity. J Toxicol Environ Health 45:173-210.
- *Mulder GJ, Scholtens E. 1977. Phenol sulphotransferase and uridine diphosphate glucuronyltransferase from rat liver *in vivo* and *in vitro*. Biochem J 165:553-559.
- *Muraleedharan TR, Radojevic M, Waugh A, et al. 2000. Chemical characterization of the haze in Brunei Darussalam during the 1998 episode. Atmos Environ 34(17):2725-2731.
- *Murphy JC, Osterberg RE, Seabaugh VM, et al. 1982. Ocular irritancy responses to various pHs of acids and bases with and without irrigation. Toxicology 23:281-291.
- *Musto JD, Sane JN, Warner VD. 1977. Quantitative determination of phenol by high-pressure liquid chromatography. J Pharm Sci 66:1201-1202.
- *Nagel R, Adler HI, Rao TK. 1982. Induction of filamentation by mutagens and carcinogens in a ion-mutant of *Escherichia coli*. Mutat Res 105:309-312.
- Nanbo T. 1993. Influence of dietary lipids on glucuronidation and sulfation of phenol and its *para* substituent in the rat. Biol Pharm Bull 16:518-520.
- *NARA. 2006. Phenol. Electronic Code of Federal Regulations. Washington, DC: National Archives and Records Administration. http://www.access.gpo.gov/nara/cfr/cfr-table-search.html. March 20, 2006.
- *Narotsky MG, Kavlock RJ. 1995. A multidisciplinary approach to toxicological screening: II. Developmental toxicity. J Toxicol Environ Health 45:145-171.
- *NAS/NRC. 1989. Biologic markers in reproductive toxicology. National Academy of Sciences/National Research Council. Washington, DC: National Academy Press, 15-35.
- *Nazaroff WM, Singer BC. 2004. Inhalation of hazardous air pollutants from environmental tobacco smoke in U.S. residences. J Expo Anal Environ Epidemiol 14:871-877.
- *NCI. 1980. Bioassay of phenol for possible carcinogenicity. Bethesda, MD: U.S. Department of Health and Human Services. National Cancer Institute. NCI-CG-TR-203.

PHENOL 222 9. REFERENCES

- *NCI. 1998. Cigars. Health effects and trends. Smoking and tobacco control monograph 9. Bethesda, MD: U.S. Department of Health and Human Services. National Cancer Institute. NIH Pub. No. 98-4302.
- *Needham LL, Head SL, Cline RE. 1984. Determination of phenols and cresols in urine by gas chromatography. Anal Lett 17:1555-1565.
- *Nicola RM, Branchflower R, Pierce D. 1987. Chemical contaminants in bottomfish. J Environ Health 49:342-347.
- *Nieminen E, Heikkila P. 1986. Simultaneous determination of phenol, cresols and xylenols in workplace air, using a polystyrene-divinylbenzene column and electrochemical detection. J Chromatogr 360:271-278.
- *Nilsson A, Lagesson V, Bornehag C-G, et al. 2005. Quantitative determination of volatile organic compounds in indoor dust using gas chromatography-UV spectrometry. Environ Int 31:1141-1148.
- *NIOSH. 1984. Health hazard evaluation report No. HETA 82-053-1236. Bay Area Hospital, Coos Bay, OR. National Institute for Occupational Safety and Health. PB84210525.
- *NIOSH. 1994. NIOSH manual of analytical methods. 4th ed. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control, National Institute for Occupational Safety and Health.
- *NIOSH. 2005. Phenol. NIOSH pocket guide to chemical hazards. Atlanta, GA: National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention. http://www.cdc.gov/niosh/npg/. March 08, 2006.
- *NIOSH. 2006. Phenol. National occupational exposure survey 1981-1983. Cincinnati, OH: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control. National Institute for Occupational Safety and Health, July 1, 1990.
- *Nishihara T, Nishikawa J, Kanayama T, et al. 2000. Estrogenic activities of 517 chemicals by yeast two-hybrid assay. J. Health Sci.46(4):282-298.
- *Nomoto Y, Fujita T, Kitani Y. 1987. Serum and urine levels of phenol following phenol blocks. Can J Anaesth 34(3):307-310.
- *NRC. 1993. Pesticides in the diets of infants and children. National Research Council, Washington DC: National Academy Press.
- *NTP. 1983a. Teratologic evaluation of phenol (CAS No. 108-95-2) in CD-1 rats. National Toxicology Program. Research Triangle Park, NC: Research Triangle Institute.
- *NTP. 1983b. Teratologic evaluation of phenol (CAS No. 108-95-2) in CD mice. Laboratory study: September 18, 1980 to January 12, 1981. National Toxicology Program. Research Triangle Park, NC: Research Triangle Institute.
- *NTP. 2005. Report on carcinogens. 11th ed. Research Triangle Park, NC: National Toxicology Program, Department of Health and Human Services. http://ntp-server.niehs.nih.gov/ntp/roc/toc11.html. March 08, 2006.

PHENOL 223 9. REFERENCES

- *O'Grodnick JS, Dupre GD, Gulizia BJ, et al. 1983. Determination of benzene, phenol, catechol and hydroquinone in whole blood of rats and mice. J Chromatog Sci 21:289-292.
- *OHM/TADS. 1998. Oil and Hazardous Materials/Technical Assistance Data System. Baltimore, MD: Chemical Information System, Inc. May 12, 1998.
- *Ohtsuji H, Ikeda M. 1972. Quantitative relation between atmospheric phenol vapor and phenol in the urine of workers in Bakelite factories. Br J Ind Med 29:70-73.
- *O'Neil MJ. 2001. Phenol. In: Merck index: An encyclopedia of chemicals, drugs, and biologicals. Whitehouse Station, NJ: Merck Research Laboratories, 1299.
- *OSHA. 2005a. Air contaminants. Occupational safety and health standards for shipyard employment. Washington, DC: Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1915.1000. http://www.osha.gov/comp-links.html. March 08, 2006.
- *OSHA. 2005b. Gases, vapors, fumes, dusts, and mists. Safety and health regulations for construction. Washington, DC: Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1926.55, Appendix A. http://www.osha.gov/comp-links.html. March 08, 2006.
- *OSHA. 2005c. Limits for air contaminants. Occupational safety and health standards. Washington, DC: Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1910.1000. http://www.osha.gov/comp-links.html. March 06, 2006.
- *OTA. 1990. Neurotoxicology: Identifying and controlling poisons of the nervous system. Washington, DC: Office of Technology Assessment. OTA-BA-438.
- *OTII. 2006. Phenol imports and exports. Washington, DC: U.S. Department of Commerce, Office of Trade and Industry Information, International Trade Administration. http://www.ita.doc.gov/td/industry/otea/trade-detail/index.html. July 14, 2006.
- *Owen GM, Brozek J. 1966. Influence of age, sex, and nutrition on body composition during childhood and adolescence. In: Falkner, ed. Human development. Philadelphia, PA: Saunders, 222-238.
- *Painter RB, Howard R. 1982. The HeLa DNA-synthesis inhibition test as a rapid screen for mutagenic carcinogens. Mutat Res 92:427-437.
- *Parkhurst BR, Bradshaw AS, Forte JL, et al. 1979. An evaluation of the acute toxicity to aquatic biota of a coal conversion effluent and its major components. Bull Environ Contam Toxicol 23:349-356.
- *Paschin YV, Bahitova LM. 1982. Mutagenicity of benzo[a]pyrene and the antioxidant phenol at the HGPRT locus of V79 Chinese hamster cells. Mutat Res 104:389-393.
- *Pashin YV, Bakhitova LM, Bentkhen TI. 1987. Dependence of antimutagenic activity of simple phenols on the number of hydroxyl groups. Bull Exp Biol Med 102(2):1121-1123.
- *Paterson B, Cowie CE, Jackson PE. 1996. Determination of phenols in environmental waters using liquid chromatography with electrochemical detection. J Chromatogr 731:95-102.

PHENOL 224 9. REFERENCES

- *Patrick E, Maibach HI, Burkhalter A. 1985. Mechanisms of chemically induced skin irritation. I. Studies of time course, dose response, and components of inflammation in the laboratory mouse. Toxicol Appl Pharmacol 81:476-490.
- *Pellack-Walker P, Blumer JL. 1986. DNA damage in L5178YS cells following exposure to benzene metabolites. Mol Pharmacol 39:42-47.
- Perkins MA, Osborne R, Johnson GR. 1996. Development of an *in vitro* method for skin corrosion testing. Fundam Appl Toxicol 31:9-18.
- *Petrasek AC, Kugelman IJ, Austern BM, et al. 1983. Fate of toxic organic compounds in wastewater treatment plants. J Water Pollut Control Fed 55:1286-1296.
- *Pfeffer FM. 1979. The 1977 screening survey for measurement of organic priority pollutants in petroleum refinery wastewaters. ASTM Spec Tech Publ 686:181-190.
- *Pierrehumbert G, Pierre-Oliver D, Tardif R, et al. 2002. Impact of human variability on the biological monitoring of exposure to toluene, phenol, lead, and mercury: II. Compartmental based toxicokinetic modelling. Toxicol Lett 134:165-175.
- *Piotrowski JK. 1971. Evaluation of exposure to phenol: Absorption of phenol vapor in the lungs through the skin and excretion of phenol in urine. Br J Ind Med 28:172-178.
- *Plumb RH Jr. 1987. A comparison of ground water monitoring data from CERCLA and RCRA sites. Ground Water Monit Rev 7:94-100.
- *Poirier MC, DeCicco BT, Lieberman MW. 1975. Nonspecific inhibition of DNA repair synthesis by tumor promotors in human diploid fibroblasts damage with N-acetoxy-2-acetylaminofluorene. Cancer Res 35:1392-1397.
- *Poliakova OV, Lebedev AT, Hanninen O. 2000. Organic pollutants in snow of urban and rural Russia and Finland. Toxicol Environ Chem 75:181-194.
- *Pool PL, Lin PZ. 1982. Mutagenicity testing in the *Salmonella typhimurium* assay of phenolic compounds and phenolic fractions obtained from smokehouse smoke condensates. Food Chem Toxicol 29:383-391.
- *Popp W, Rauscher D, Muller G et al. 1994. Concentrations of benzene in blood and *S*-phenylmercapturic acid and *t*,*t*-muconic acid in urine in car mechanics. Int Arch Occup Environ Health 66:1-6.
- *Post G, Snyder R, Kalf GF. 1986. Metabolism of benzene and phenol in macrophages *in vitro* and the inhibition of RNA synthesis by benzene metabolites. Cell Biol Toxicol 2:231-246.
- *Powell GM, Miller JJ, Olavesen AH, et al. 1974. Liver as major organ of phenol detoxification. Nature (London) 252:234-235.
- *Powley MW, Carlson GP. 2001. Cytochrome P450 isozymes involved in the metabolism of phenol, a benzene metabolite. Toxicol Lett 125:117-123.

PHENOL 225 9. REFERENCES

- *Powlowski J, Shingler V. 1994. Genetics and biochemistry of phenol degradation by *Pseudomonas* sp. CF600. Biodegradation 5:219-236.
- *Pullin TG, Pinkerton MN, Johnson RV, et al. 1978. Decontamination of the skin of swine following phenol exposure: A comparison of the relative efficacy of water versus polyethylene glycol/industrial methylated spirits. Toxicol Appl Pharmacol 43:199-206.
- *Quebbemann AJ, Anders MW. 1973. Renal tubular conjugation and excretion of phenol and p-nitrophenol in the chicken: Differing mechanisms of renal transfer. J Pharmacol Exp Ther 184:695-708.
- *Quint U, Muller RT, Muller G. 1998. Characteristics of phenol: Instillation in intralesional tumor excision of shondroblastoma, osteoclastoma and enchondroma. Arch Orthop Trauma Surg 117:43-46.
- *Ramakrishna BS, Roberts-Thomson IC, Pannall PR, et al. 1991. Impaired sulphation of phenol by the colonic mucosa in quiescent and active ulcerative colitis. Gut 32:46-49.
- Ramli JB, Wheldrake JF. 1981. Phenol conjugation in the desert hopping mouse, *Notomys alexis*. Comp Biochem Physiol 69C:379-381.
- *Reddy MV, Bleicher WT, Blackburn GR, et al. 1990. DNA adduction by phenol, hydroquinone, or benzoquinone *in vitro* but not *in vivo*: Nuclease P1-enhanced ³²P-postlabeling of adducts as labeled nucleoside bisphosphates, dinucleotides and nucleoside monophosphates. Carcinogenesis 11:1349-1357.
- *Rick DL, Licht CF, McCarty LP. 1982. Determination of phenol and pentachlorophenol in plasma and urine samples by gas liquid chromatography. J Anal Toxicol 6:297-300.
- *Roemer E, Stabbert R, Rustemeier K, et al. 2004. Chemical composition, cytotoxicity and mutagenicity of smoke from U.S. commercial and reference cigarettes smoked under two sets of machine smoking conditions. Toxicology 195:31-52.
- *Rogers SCF, Burrows D, Neill D. 1978. Percutaneous absorption of phenol and methyl alcohol in magenta paint. Br J Dermatol 98:559-560.
- *Rothman N, Bechtold WE, Yin S-N, et al. 1998. Urinary excretion of phenol, catechol, hydroquinone, and muconic acid by workers occupationally exposed to benzene. Occup Environ Med 55:705-711.
- *Rubin HE, Alexander M. 1983. Effect of nutrients on the rates of mineralization of trace concentrations of phenol and p-nitrophenol. Environ Sci Technol 17:104-107.
- *Ryan BM, Selby R, Gingell R, et al. 2001. Two-generation reproduction study and immunotoxicity screen in rats dosed with phenol via the drinking water. Int J Toxicol 20:121-142.
- *Sabourin PJ, Bechtold WE, Griffith WC, et al. 1989. Effect of exposure concentration, exposure rate, and route of administration on metabolism of benzene by F344 rats and B6C3F1 mice. Toxicol Appl Pharmacol 99:421-444.
- *Sabourin PJ, Chen BT, Lucier G, et al. 1987. Effect of dose on the absorption and excretion of [¹⁴C]benzene administered orally or by inhalation in rats and mice. Toxicol Appl Pharmacol 87:325-336.
- *Sacan MT, Balcioglu IA. 1996. Prediction of the soil sorption coefficient of organic pollutants by the characteristic root index model. Chemosphere 32(10):1993-2001.

PHENOL 226 9. REFERENCES

- *Salaman MH, Glendenning OM. 1957. Tumor promotion in mouse skin by sclerosing agents. Br J Cancer 11:434-444.
- Sawahata T, Neal RA. 1983. Biotransformation of phenol to hydroquinone and catechol by rat liver microsomes. Mol Pharmacol 23:453-460.
- *Schaltenbrand WE, Coburn SP. 1985. Determination of phenol and p-cresol in urine. Clin Chem 31:2042-2043.
- *Schauer JJ, Kleeman MJ, Cass GR, et al. 2001. Measurement of emissions from air pollution sources. 3. C₁–C₂₉ organic compounds from fireplace combustion of wood. Environ Sci Technol 35:1716-1728.
- *Schlosser PM, Bond JA, Medinsky MA. 1993. Benzene and phenol metabolism by mouse and rat liver microsomes. Carcinogenesis 14:2477-2486.
- *Schmidt SH, Hellström S. 1993. Phenol anesthesia of the tympanic membrane in purulent otitis media A structural analysis in the rat. Eur Arch Otorhinolaryngol 249:470-472.
- *Schmidt SH, Anniko M, Hellström S. 1990. Electrophysiological effects of the clinically used local anesthetics lidocaine, lidocaine-prilocaine and phenol on the rat's inner ear. Eur Arch Otorhinolaryngol 248:87-94.
- *Schwartz CS, Snyder R, Kalf GF. 1985. The inhibition of mitochondrial DNA replication *in vitro* by the metabolites of benzene, hydroquinone and p-benzoquinone. Chem-Biol Interact 53:327-350.
- *Scott DO, Lunte CE. 1993. *In vivo* microdialysis sampling in the bile, blood, and liver of rats to study the disposition of phenol. Pharmaceutical Res 10:335-342.
- *Scott HD, Wolf DC, Lavy TL. 1983. Adsorption and degradation of phenol at low concentrations in soil. J Environ Qual 12:91-95.
- *Scully FE, Jr, Hoigne JR. 1987. Rate constants for reactions of singlet oxygen with phenols and other compounds in water. Chemosphere 16:681-694.
- Seaton MJ, Schlosser PM, Medinsky MA. 1995. *In vitro* conjugation of benzene metabolites by human liver: Potential influence of interindividual variability on benzene toxicity. Carcinogenesis 16:1519-1527.
- *Semple KT, Cain RB. 1996. Biodegradation of phenols by the alga *Ochromonas danica*. Appl Environ Microbiol 62:1265-1273.
- *Setchell BP, Waites GMH. 1975. The blood testis barrier. In: Creep RO, Astwood EB, Greiger SR, eds. Handbook of physiology: Endocrinology V. Washington, DC: American Physiological Society, 143-172.
- *Shafer KH, Cooke M, Deroos F, et al. 1981. WCOT capillary GC/FT-IR and GC/MS for identifying toxic organic pollutants. Appl Spectrosc 35:469-472.

PHENOL 227 9. REFERENCES

- *Shamy MY, El Gazzar RM El Sayed MA, et al. 1994. Study of some biochemical changes among workers occupationally exposed to phenol, alone or in combination with other organic solvents. Ind Health 32:207-214.
- *Shelby MD, Witt KL. 1995. Comparison of results from mouse bone marrow chromosomes aberration and microbucleous tests. Environ Mol Mutagen 25(4):302-313.
- *Sheldon LS, Hites RA. 1978. Organic compounds in the Delaware River. Environ Sci Technol 12:1188-1194.
- *Sheldon LS, Hites RA. 1979. Sources and movement of organic chemicals in the Delaware River. Environ Sci Technol 13:574-579.
- *Shiu WY, Ma KC, Varhanickova AD, et al. 1994. Chlorophenols and alkylphenols: A review and correlation of environmentally relevant properties and fate in an evaluative environment. Chemosphere 29:1155-1224.
- *Sithole BB, Williams DT, Lastoria C, et al. 1986. Determination of halogenated phenols in raw and potable water by selected ion gas chromatography-mass spectrometry. J Assoc Off Anal Chem 69:466-473.
- *Skare JA, Schrotel KR. 1984. Alkaline elution of rat testicular DNA: Detection of DNA strand breaks after *in vivo* treatment with chemical mutagens. Mutat Res 130:283-294.
- *Skowronski GA, Kadry AM, Turkall RM, et al. 1994. Soil decreases the dermal penetration of phenol in male pig *in vitro*. J Toxicol Environ Health 41:467-479.
- *Smart RC, Zannoni VG. 1984. DT-Diaphorase and peroxidase influence the covalent binding of the metabolites of phenol, the major metabolite of benzene. Mol Pharmacol 26:105-111.
- *Snyder R, Chepiga T, Yang CS, et al. 1993. Benzene metabolism by reconstituted cytochromes P450 2B1 and 2E1 and its modulation by cytochrome b(5), microsomal epoxide hydrolase, and glutathione transferases: Evidence for an important role of microsomal epoxide hydrolase in the formation of hydroquinone. Toxicol Appl Pharmacol 122(2):172-181.
- *Soares ER, Tift JP. 1982. Phenol poisoning: Three fatal cases. J Forensic Sci 27(3):729-731.
- *Spiller HA, Quandrani-Kushner DA, Cleveland P. 1993. A five year evaluation of acute exposures to phenol disinfectant (26%). J Toxicol Clin Toxicol 31:307-313.
- *Sporns P. 1981. High pressure liquid chromatographic determination of phenol in honey. J Assoc Off Anal Chem 64:337-340.
- *SRI. 2006. Phenol. 2005 Directory of chemical producers. Menlo Park, CA: SRI Consulting, 785.
- *Stajduhar-Caric Z. 1968. Acute phenol poisoning. Singular findings in a lethal case. J Forensic Med 15:41-42.
- *Steele RH, Wilhelm DL. 1966. The inflammatory reaction in chemical injury. I. Increased vascular permeability and erythema induced by various chemicals. Br J Exp Pathol 47:612-623.

PHENOL 228 9. REFERENCES

- *Stommel P, Muller G, Stucker W et al. 1989. Determination of S-phenylmercapturic acid in the urine-An improvement in the biological monitoring of benzene exposure. Carcinogenesis 10:279-282.
- *Stover EL, Kincannon DF. 1983. Biological treatability of specific organic compounds found in chemical industry wastewaters. J Water Pollut Control Fed 55:97-109.
- *Stubin AI, Brosnan TM, Porter KD, et al. 1996. Organic priority pollutants in New York City municipal wastewaters: 1989–1993. Water Environ Res 68:1037-1044.
- *Stuermer DH, Ng DJ, Morris CJ. 1982. Organic contaminants in groundwater near an underground coal gasification site in northeastern Wyoming. Environ Sci Technol 16:582-587.
- *Sturtevant FM. 1952. Studies on the mutagenicity of phenol in *Drosophila melanogaster*. J Hered 43:217-220.
- *Subrahmanyam VV, O'Brien PJ. 1985. Phenol oxidation products, formed by a peroxidase reaction, that bind to DNA. Xenobiotica 15:873-885.
- Subrahmanyam VV, Doane-Setzer P, Steinmetz KL, et al. 1990a. Phenol-induced stimulation of hydroquinone bioactivation in mouse bone marrow *in vivo*: Possible implications in benzene myelotoxicity. Toxicology 62:107-116.
- Subrahmanyam VV, Kolachana P, Smith MT. 1990b. Effect of phenol and catechol on the kinetics of human myeloperoxidase-dependent hydroquinone metabolism. Adv Exp Med Biol 283:377-381.
- Subrahmanyam VV, Kolachana P, Smith MT. 1991. Hydroxylation of phenol to hydroquinone catalyzed by a human myeloperoxidase-superoxide complex: Possible implications in benzene-induced myelotoxicity. Free Radic Res Commun 15:285-296.
- Subrahmanyam VV, McGirr LG, O'Brien PJ. 1990c. Peroxidase/hydrogen peroxide— or bone marrow homogenate/hydrogen peroxide—mediated activation of phenol and binding to protein. Xenobiotica 20:1369-1378.
- *Sunesson AL, Gullberg J, Blomquist G. 2001. Airborne chemical compounds on dairy farms. J Environ Monit 3(2):210-216.
- *Suppiah A, Perry EP. 2005. Jaundice as a presentation of phenol induced hepatotoxocity following injection scherotherapy for haemorrhoids. Surgeon 3(1):43-44.
- *Suzuki T, Kisara K. 1985. Enhancement of phenol-induced tremor caused by central monoamine depletion. Pharmacol Biochem Behav 22:153-155.
- *Sze C-C, Shi C-Y, Ong C-N. 1996. Cytotoxicity and DNA strand breaks induced by benzene and its metabolites in Chinese hamster ovary cells. J Appl Toxicol 16:259-264.
- *Tanaka S, Choe N, Kita T, et al. 1998. Distribution of phenol in a fatal poisoning case determined by gas chromatography/mass spectrometry. J Forensic Sci 43(5):1086-1088.
- *Tang J, Jin QZ, Shen GH, et al. 1983. Isolation and identification of volatile compounds from fried chicken. J Agric Food Chem 31:1287-1292.

PHENOL 229 9. REFERENCES

- *Tesarova E, Packova V. 1983. Gas and high performance liquid chromatography of phenols. Chromatographia 17:269-284.
- *Thomas K, Colborn T. 1992. Organochlorine endocrine disruptors in human tissue. In: Colborn T, Clement C, eds. Chemically induced alterations in sexual and functional development: The wildlife/human connection. Princeton, NJ: Princeton Scientific Publishing, 365-394.
- *Thurman C. 1982. Phenol. In: Kirk-Othmer encyclopedia of chemical technology, 3rd ed., Vol 17. New York, NY: John Wiley and Sons, 373-384.
- *Thurman EM. 1985. Organic geochemistry of natural waters. Boston, MA: Martinus Nijhoff/Dr. W. Junk Publishers, 143-146.
- *Tomkins BA, Jenkins RA, Griest WH, et al. 1984. Liquid chromatographic determination of phenol and cresols in total particulate matter of cigarette smoke. J Assoc Off Anal Chem 67:919-923.
- *Tremaine LM, Diamond GL, Quebbemann AJ. 1984. *In vivo* quantification of renal glucuronide and sulfate conjugation of 1-naphthol and *p*-nitrophenol in the rat. Biochem Pharmacol 33:419-427.
- TRI04. 2006. TRI explorer: Providing access to EPA's toxics release inventory data. Washington, DC: Office of Information Analysis and Access. Office of Environmental Information. U.S. Environmental Protection Agency. Toxics Release Inventory. http://www.epa.gov/triexplorer/. March 16, 2006.
- *Truppman ES, Ellenby JD. 1979. Major electrocardiographic changes during chemical face peeling. Plast Reconstr Surg 63:44-48.
- *Tsutsui T, Hayashi N, Maizumi H, et al. 1997. Benzene-, catechol-, hydroquinone- and phenol-induced cell transformation, gene mutations, chromosome aberrations, aneuploidy, sister chromatid exchanges and unscheduled DNA synthesis in Syrian hamster embryo cells. Mutat Res 373(1):113-123.
- *U.S. Air Force. 1961. Tolerance criteria for continuous inhalation exposure to toxic material. I. Effects on animals of 90-day exposure to phenol, CCl₄ and a mixture of indole, skatole, H₂S and methyl mercaptan. Wright-Patterson Air Force Base, OH: U.S. Air Force systems command, Aeronautical Systems Division, ASD technical report 61-519(I).
- *USGS. 1995. Method O-5130-95: Determination of semivolatile organic compounds in bottom sediment by solvent extraction, gel permeation chromatographic fractionation, and capillary-column gas chromatography/mass spectrometry. U.S. Geological Survey. http://pubs.er.usgs.gov/usgspubs/ofr/ofr95719. April 18, 2006.
- *USGS. 2002. Method O-1433-01: Pesticides and degradates, filtered water, gas chromatography/mass spectrometry. Methods of analysis by the U.S. Geological Survey National Water Quality Laboratory-Determination of wastewater compounds by polystyrene-divinylbenzene solid-phase extraction and capillary-column gas chromatography/mass spectrometry. U.S. Geological Survey.
- *USITC. 2006. Synthetic organic chemicals, United States production and sales. Washington, DC: U.S. International Trade Commission. http://dataweb.usitc.gov/. July 14, 2006.
- *Van Duuren BL, Goldschmidt BM. 1976. Cocarcinogenic and tumor promoting agents in tobacco carcinogenesis. J Natl Cancer Inst 56:1237-1242.

PHENOL 230 9. REFERENCES

- *Van Duuren BL, Blazej T, Goldschmidt BM, et al. 1971. Cocarcinogenesis studies on mouse skin and inhibition of tumor induction. J Natl Cancer Inst 46:1039-1044.
- *Van Roosmalen PB, Purdham J, Drummond I. 1981. An improved method for the determination of phenol in the urine of workers exposed to benzene or phenol. Int Arch Occup Environ Health 48:159-163.
- *Van Rossum P, Webb RG. 1978. Isolation of organic water pollutants by XAD resins and carbon. J Chromatogr 150:381-392.
- *Vernot EH, MacEwen JD, Haun CC, et al. 1977. Acute toxicity and skin corrosion data for some organic and inorganic compounds and aqueous solutions. Toxicol Appl Pharmacol 42:417-424.
- *Viccellio P. 1998. Phenols. In: Emergency toxicology. 2nd ed. Philadelphia, PA: Lippincott-Raven Publishers, 355-362.
- *Vieira I, Sonnier M, Cresteil T. 1996. Developmental expression of CYP2E1 in the human liver: Hypermethylation control of gene expression during the neonatal period. Eur J Biochem 238:476-483.
- *von Oettingen WF, Sharpless NE. 1946. The toxicity and toxic manifestations of 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane (DDT) as influenced by chemical changes in the molecule. J Pharmacol Exp Ther 88:400-413.
- *Wallace JC, Basu I, Hites RA. 1996. Sampling and analysis artifacts caused by elevated indoor air polychlorinated biphenyl concentrations. Environ Sci Technol 30:2730-2734.
- Wallin H, Morgenstern R. 1990. Activation of microsomal glutathione transferase activity by reactive intermediates formed during the metabolism of phenol. Chem-Biol Interact 75:185-199.
- *Warner MA, Harper JV. 1985. Cardiac dysrhythmias associated with chemical peeling with phenol. Anesthesiology 62:366-367.
- *Waxman DJ, Dannan GA, Guengerich FP. 1985. Regulation of rat hepatic cytochrome P-450: Age-dependent expression, hormonal imprinting, and xenobiotic inducibility of sex-specific isoenzymes. Biochemistry 24:4409-4417.
- *Weitering JG, Kriggsheld KR, Mulder GJ. 1979. The availability of inorganic sulfate as a rate limiting factor in the sulfate conjugation of xenobiotics in the rat. Biochem Pharmacol 28:757-762.
- *West JR, Smith HW, Chasis H. 1948. Glomerular filtration rate, effective renal blood flow, and maximal tubular excretory capacity in infancy. J Pediatr 32a:10-18.
- *Wexler MR, Halon DA, Teitelbaum A, et al. 1984. The prevention of cardiac arrhythmias produced in an animal model by the topical application of a phenol preparation in common use for face peeling. Plast Reconstr Surg 73:595-598.
- *Wheldrake JF, Baudinette RV, Hewitt S. 1978. The metabolism of phenol in desert rodent *Notomys alexis*. Comp Biochem Physiol 61C:103-107.
- *WHO. 1994. Phenol. Environmental health criteria 161. Geneva, Switzerland: United Nations Environment Programme. International Labour Organisation. World Health Organization.

PHENOL 231 9. REFERENCES

- *WHO. 2000. Air quality guidelines. 2nd ed. Geneva, Switzerland: World Health Organization. http://www.euro.who.int/air/activities/20050223_4. March 08, 2006.
- *WHO. 2004. Guidelines for drinking water qualities. 3rd ed. Geneva, Switzerland: World Health Organization. http://www.who.int/water sanitation health/dwq/gdwq3/en/. March 08, 2006.
- *Widdowson EM, Dickerson JWT. 1964. Chemical composition of the body. In: Comar CL, Bronner F, eds. Mineral metabolism: An advanced treatise, volume II, The elements part A. New York, NY: Academic Press.
- *Wilcosky TC, Tyroler HA. 1983. Mortality from heart disease among workers exposed to solvents. J Occup Med 25:879-885.
- *Wood K. 1978. The use of phenol as a neurolytic agent: A review. Pain 5:205-229.
- *Wynder E, Hoffmann D. 1961. A study of tobacco carcinogenesis. VIII. The role of acidic fractions as promotors. Cancer 14:1306-1315.
- *Xing B, McGill WB, Dudas MJ. 1994. Sorption of phenol by selected polymers: Isotherms, energetics, and polarity. Environ Sci Technol 28:466-473.
- *York RG. 1997. Oral (gavage) developmental toxicity study of phenol in rats. Proctor & Gamble Company. Submitted to the U.S. Environmental Protection Agency under TSCA Section 8D. OTS0573686.
- *Young DR, Gossett RW, Baird RB, et al. 1983. Wastewater inputs and marine bioaccumulation of priority pollutants organics off southern California. In: Water chlorination: Environmental impacts and health effects. 4:871-884.
- *Yrjanheikki E. 1978. A new method of personnel sampling and analyzing of phenol. Am Ind Hyg Assoc J 39:326-330.
- *Zamponi GW, Ing D, French RJ. 1994. Arrhythmias during phenol therapies: A specific action on cardiac sodium channels? Circulation 89:914.
- Zhao F, Mayura K, Hutchinson RW, et al. 1995. Developmental toxicity and structure-activity relationships of chlorophenols using human embryonic palatal mesenchymal cells. Toxicol Lett 78:35-42
- *Zhu J, Newhook R, Marro L, et al. 2005. Selected volatile organic compounds in residential air in the city of Ottawa, Canada. Environ Sci Technol 39(11):3964-3971.
- *Ziegler EE, Edwards BB, Jensen RL, et al. 1978. Absorption and retention of lead by infants. Pediatr Res 12:29-34.