

CHAPTER 8. REFERENCES

- Abrahamsson K, Klick S. 1991. Degradation of halogenated phenols in anoxic natural marine sediments. *Mar Pollut Bull* 22(5):227-233.
- ACGIH. 2019. TLVs and BEIs based on the documentation of the threshold limit values for chemical substances and physical agents and biological exposure indices. Cincinnati, OH: American Conference of Governmental Industrial Hygienists.
- Ahlborg UG, Larsson K. 1978. Metabolism of tetrachlorophenols in the rat. *Arch Toxicol* 40:63-74.
- Aker AM, Johns L, McElrath TF, et al. 2018. Associations between maternal phenol and paraben urinary biomarkers and maternal hormones during pregnancy: A repeated measures study. *Environ Int* 113:341-349. <http://doi.org/10.1016/j.envint.2018.01.006>.
- Alexandersson R, Hedenstierna G. 1982. Pulmonary function after long-term exposure to trichlorophenol. *Int Arch Occup Environ Health* 49(3-4):275-280. <http://doi.org/10.1007/bf00377936>.
- Aly OM, Faust SD. 1964. Studies on the fate of 2,4-D and ester derivatives in natural surface waters. *J Agric Food Chem* 12:541-546.
- Amer SM, Aly FA. 2001. Genotoxic effect of 2,4-dichlorophenoxy acetic acid and its metabolite 2,4-dichlorophenol in mouse. *Mutat Res* 494(1-2):1-12.
- Angerer J, Heinzow B, Reimann DO, et al. 1992. Internal exposure to organic substances in a municipal waste incinerator. *Int Arch Occup Environ Health* 64(4):265-273.
- Angerer J, Henizow B, Reimann DO, et al. 1993. Waste incineration: Estimation of the workers' internal exposure to PCB, PAH, chlorophenols and other relevant agents. *Proc SPIE* 1716:418-426. <http://doi.org/10.1117/12.140277>.
- Aoyama H, Hojo H, Takahashi KL, et al. 2005. A two-generation reproductive toxicity study of 2,4-dichlorophenol in rats. *J Toxicol Sci* 30:59-78.
- Armenante PM, Kafkewitz D, Lewandowski G, et al. 1992. Integrated anaerobic-aerobic process for the biodegradation of chlorinated aromatic-compounds. *Environ Prog* 11(2):113-122.
- Armstrong MJ, Galloway SM, Ashby J. 1993. 2,4,6-Trichlorophenol (TCP) induces chromosome breakage and aneuploidy in vitro. *Mutat Res* 303(3):101-108. [http://doi.org/10.1016/0165-7992\(93\)90021-m](http://doi.org/10.1016/0165-7992(93)90021-m).
- Arrhenius E, Renberg L, Johansson L, et al. 1977. Disturbance of microsomal detoxication mechanisms in liver by chlorophenol pesticides. *Chem Biol Interact* 18:35-46.
- ATSDR. 1989. Decision guide for identifying substance-specific data needs related to toxicological profiles; Notice. Agency for Toxic Substances and Disease Registry. *Fed Regist* 54(174):37618-37634.
- ATSDR. 2017. Chlorophenols. Full SPL data. Substance priority list (SPL) resource page. Agency for Toxic Substances and Disease Registry. <http://www.atsdr.cdc.gov/SPL/resources/index.html>. October 6, 2017.
- Audet-Delage Y, Ouellet N, Dallaire R, et al. 2013. Persistent organic pollutants and transthyretin-bound thyroxin in plasma of Inuit women of childbearing age. *Environ Sci Technol* 47(22):13086-13092. <http://doi.org/10.1021/es4027634>.
- Aung MT, Ferguson KK, Cantonwine DE, et al. 2019. Associations between maternal plasma measurements of inflammatory markers and urinary levels of phenols and parabens during pregnancy: A repeated measures study. *Sci Total Environ* 650(Pt 1):1131-1140. <http://doi.org/10.1016/j.scitotenv.2018.08.356>.
- Aydin H, Baran A, Aktas A, et al. 2009. Effects of soybean extract and L-tryptophan on 2,4-dichlorophenol induced testicular toxicity in mice. *J Anim Vet Adv* 8(4):774-778.
- Azouz WM, Parke DV, Williams RT. 1953. Studies in detoxication. 51. The determination of catechols in urine, and the formation of catechols in rabbits receiving halogenobenzenes and other compounds: Dehydroxylation *in vivo*. *Biochem J* 55:146-151.

8. REFERENCES

- Badée J, Qiu N, Collier AC, et al. 2019. Characterization of the ontogeny of hepatic UDP-glucuronosyltransferase enzymes based on glucuronidation activity measured in human liver microsomes. *J Clin Pharmacol* 59 Suppl 1:S42-S55. <http://doi.org/10.1002/jcph.1493>.
- Bae HS, Lee JM, Lee ST. 1996. Biodegradation of 4-chlorophenol via a hydroquinone pathway by *Arthrobacter ureofaciens* CPR706. *FEMS Microbiol Lett* 145:125-129.
- Bahig ME, Kraus A, Klein W. 1981. Excretion and metabolism of 2,4,6-trichlorophenol-¹⁴C in rats. *Chemosphere* 10:323-327.
- Baker MD, Mayfield CI. 1980. Microbial and non-biological decomposition of chlorophenols and phenol in soil. *Water Air Soil Pollut* 13:411-424.
- Baker MD, Mayfield CI, Inniss WE. 1980. Degradation of chlorophenol in soil, sediment and water at low temperature. *Water Res* 14:1765-1771.
- Balfanz J, Rehm H. 1991. Biodegradation of 4-chlorophenol by adsorptive immobilized *Alcaligenes sp.* A7-2 in soil. *Appl Microbiol Biotechnol* 35(5):662-668.
- Banerjee S, Howard PH, Rosenberg AM, et al. 1984. Development of a general kinetic model for biodegradation and its application to chlorophenols and related compounds. *Environ Sci Technol* 18(6):416-422.
- Banna NR, Jabbur SJ. 1970. Increased transmitter release induced by convulsant phenols. *Brain Res* 20(3):471-473. [http://doi.org/10.1016/0006-8993\(70\)90178-2](http://doi.org/10.1016/0006-8993(70)90178-2).
- Barnes DG, Dourson M. 1988. Reference dose (RfD): Description and use in health risk assessments. *Regul Toxicol Pharmacol* 8(4):471-486.
- Barrows ME, Petrocelli SR, Macek KJ, et al. 1980. Bioconcentration and elimination of selected water pollutants by bluegill sunfish (*Lepomis macrochirus*). In: Haque R, ed. Dynamics, exposure and hazard assessment of toxic chemicals. Ann Arbor, MI: Ann Arbor Science Publishers Inc., 379-392.
- Battersby NS, Wilson V. 1989. Survey of the anaerobic biodegradation potential of organic chemicals in digesting sludge. *Appl Environ Microbiol* 55(2):433-439.
- Bedient PB, Rodgers AC, Bouvette TC, et al. 1984. Groundwater quality at a creosote waste site. *Ground Water* 22:318-329.
- Berger K, Coker E, Rauch S, et al. 2020. Prenatal phthalate, paraben, and phenol exposure and childhood allergic and respiratory outcomes: Evaluating exposure to chemical mixtures. *Sci Total Environ* 725:138418. <http://doi.org/10.1016/j.scitotenv.2020.138418>.
- Berger K, Hyland C, Ames JL, et al. 2021. Prenatal exposure to mixtures of phthalates, parabens, and other phenols and obesity in five-year-olds in the CHAMACOS cohort. *Int J Environ Res Public Health* 18(4) <http://doi.org/10.3390/ijerph18041796>.
- Bello G, Dumancas G. 2017. Association of 2,4-dichlorophenol urinary concentrations and olfactory dysfunction in a national sample of middle-aged and older U.S. adults. *Int J Environ Health Res* 27(6):498-508. <http://doi.org/10.1080/09603123.2017.1405245>.
- Bercz JP, Robinson M, Jones L, et al. 1990. Subchronic toxicity studies of 2,4,6-trichlorophenol in Sprague-Dawley rats. *J Am Coll Toxicol* 9(5):497-506.
- Berger K, Gunier RB, Chevrier J, et al. 2018. Associations of maternal exposure to triclosan, parabens, and other phenols with prenatal, maternal, and neonatal thyroid hormone levels. *Environ Res* 165:379-386. <http://doi.org/10.1016/j.envres.2018.05.005>.
- Billi SC, San Martin de Viale LC. 1985. Ability of several hexachlorobenzene metabolites to induce porphyrin accumulation in chick embryo liver "in ovo". *Acta Physiol Pharmacol Latinoam* 35(4):399-407.
- Binder AM, Corvalan C, Pereira A, et al. 2018. Prepubertal and pubertal endocrine-disrupting chemical exposure and breast density among Chilean adolescents. *Cancer Epidemiol Biomarkers Prev* 27(12):1491-1499. <http://doi.org/10.1158/1055-9965.EPI-17-0813>.
- Blackburn K, Zenick H, Hope E, et al. 1986. Evaluation of the reproductive toxicology of 2,4,6-trichlorophenol in male and female rats. *Fundam Appl Toxicol* 6:233-239.
- Bleiberg J, Wallen M, Brodtkin R, et al. 1964. Industrially acquired porphyria. *Arch Dermatol* 89:793-797.

8. REFERENCES

- Bond GG, McLaren EA, Brenner FE, et al. 1989. Incidence of chloracne among chemical workers potentially exposed to chlorinated dioxins. *J Occup Med* 31(9):771-774.
- Borzelleca JF, Condie LW, Hayes JR. 1985a. Toxicological evaluation of selected chlorinated phenols. In: *Water chlorination: Chemistry, environmental impact and health effects*. Vol. 5. Chelsea, MI: Lewis Publishers, 331-343.
- Borzelleca JF, Hayes JR, Condie LW, et al. 1985b. Acute toxicity of monochlorophenols, dichlorophenols and pentachlorophenol in the mouse. *Toxicol Lett* 29(1):39-42.
- Borzelleca J, Hayes JR, Condie LW, et al. 1985c. Acute and subchronic toxicity of 2,4-dichlorophenol in CD-1 mice. *Fundam Appl Toxicol* 5(3):478-486. [http://doi.org/10.1016/0272-0590\(85\)90095-8](http://doi.org/10.1016/0272-0590(85)90095-8).
- Boule P, Guyon C, Lemaire J. 1982. Photochemistry and environment. IV-Photochemical behavior of monochlorophenols in dilute aqueous solution. *Chemosphere* 11(12):1179-1188.
- Boutwell RK, Bosch DK. 1959. The tumor-promoting action of phenol and related compounds for mouse skin. *Cancer Res* 19(4):413-424.
- Boyd SA, Shelton DR. 1984. Anaerobic biodegradation of chlorophenols in fresh and acclimated sludge. *Appl Environ Microbiol* 47(2):272-277.
- Bray HG, Humphris BG, Thorpe WV, et al. 1952a. Kinetic studies of the metabolism of foreign organic compounds. III. The conjugation of phenols with glucuronic acid. *Biochem J* 52:416-419.
- Bray HG, Humphris BG, Thorpe WV, et al. 1952b. Kinetic studies of the metabolism of foreign organic compounds. IV. The conjugation of phenols with sulphuric acid. *Biochem J* 52:419-423.
- Brown KW, Donnelly KC. 1988. An estimation of the risk associated with the organic constituents of hazardous and municipal waste landfill leachates. *Haz Waste Haz Mater* 5:1-30.
- BSRC. 2011. Simplified reproductive toxicity testing of oral p-chlorophenol dosage using rats. Biosafety Research Center. Pharmaceutical and Food Safety Bureau, Ministry of Health, Labour and Welfare of Japan. Test No: C539 (115-222).
- Buikema AL, McGinniss MJ, Cairns J. 1979. Phenolics in aquatic ecosystems: A selected review of recent literature. *Mar Environ Res* 2:87-181.
- Bukowska B. 2003. Effects of 2,4-D and its metabolite 2,4-dichlorophenol on antioxidant enzymes and level of glutathione in human erythrocytes. *Comp Biochem Physiol* 135(4):435-441.
- Bukowska B. 2004. 2,4,5-T and 2,4,5-TCP induce oxidative damage in human erythrocytes: The role of glutathione. *Cell Biol Int* 28(7):557-563. <http://doi.org/10.1016/j.cellbi.2004.04.013>.
- Bukowska B, Wieteska P, Kwiatkowska M, et al. 2016. Evaluation of the effect of 2,4-dichlorophenol on oxidative parameters and viability of human blood mononuclear cells (in vitro). *Hum Exp Toxicol* 35(7):775-784. <http://doi.org/10.1177/0960327115606789>.
- Bull RJ, Robinson M, Larie RD. 1986. Association of carcinoma yield with early papilloma development in SENCAR mice. *Environ Health Perspect* 68:11-17.
- Burttschell RH, Rosen AA, Middleton FM, et al. 1959. Chlorine derivatives of phenol causing taste and odor. *J Am Water Works Assoc* 51:205-214.
- Butte W, Juhl U, Schwarting W, et al. 1988. Evidence for the formation of a dihydroxychlorobiphenyl, hydroxychlorodiphenyl ethers and a hydroxychlorodibenzodioxin or hydroxychlorodiphenoquinone upon metabolism of 2,4,5-trichlorophenol by post-mitochondrial rat liver fractions (S-9). *Chemosphere* 17(6):1189-1196.
- Buttke DE, Sircar K, Martin C. 2012. Exposures to endocrine-disrupting chemicals and age of menarche in adolescent girls in NHANES (2003-2008). *Environ Health Perspect* 120(11):1613-1618. <http://doi.org/10.1289/ehp.1104748>.
- Calvert GM, Sweeney MH, Morris JA, et al. 1991. Evaluation of chronic bronchitis, chronic obstructive pulmonary disease, and ventilatory function among workers exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Am Rev Respir Dis* 144:1302-1306.
- Calvert GM, Hornung RW, Sweeney MH, et al. 1992. Hepatic and gastrointestinal effects in an occupational cohort exposed to 2,3,7,8-tetrachlorodibenzo-para-dioxin. *JAMA* 267(16):2209-2214.
- Camanzo J, Rice CP, Jude DJ, et al. 1987. Organic priority pollutants in nearshore fish from 14 Lake Michigan tributaries and embayments, 1983. *J Great Lakes Res* 13:296-309.

8. REFERENCES

- Carey JH, Fox ME, Hart JH. 1988. Identity and distribution of chlorophenols in the north arm of the Fraser River estuary. *Water Pollut Res J Can* 23(1):31-44.
- Carlson GP. 1978. Effect of trichlorophenols on xenobiotic metabolism in the rat. *Toxicology* 11(2):145-151. [http://doi.org/10.1016/s0300-483x\(78\)90939-3](http://doi.org/10.1016/s0300-483x(78)90939-3).
- Carreon RE, Young JT, New MA, et al. 1980a. 2,4-Dichlorophenol (lot #MM08120): Acute percutaneous absorption potential in rabbits. Midland, MI: Dow Chemical USA.
- Carreon RE, Young JT, New MA, et al. 1980b. 2,4-Dichlorophenol (lot #MM08120): Percutaneous absorption potential in rabbits. Midland, MI: Dow Chemical USA.
- Cascorbi I, Ahlers J. 1989. Correlation between the lipophilicity of substituted phenols and their inhibition of the Na⁺/K⁺-ATPase of Chinese hamster ovary cells. *Toxicology* 58(2):197-210.
- CDC. 2000. Occupational fatalities associated with 2,4-dichlorophenol (2,4-DCP) exposure, 1980-1998. Centers for Disease Control and Prevention. *MMWR Morb Mortal Wkly Rep* 49(23):516-518.
- CDC. 2009. Fourth national report on human exposure to environmental chemicals. Atlanta, GA: Centers for Disease Control and Prevention. <https://www.cdc.gov/exposurereport/index.html>. December 18, 2019.
- CDC. 2019. Fourth national report on human exposure to environmental chemicals updated tables, January 2019, Volume One. Atlanta, GA: Centers for Disease Control and Prevention. <https://www.cdc.gov/exposurereport/index.html>. December 18, 2019.
- CDC. 2021. Fourth national report on human exposure to environmental chemicals, updated tables, March 2021. Centers for Disease Control and Prevention. Vol. Two: NHANES 2011-2016, https://www.cdc.gov/exposurereport/pdf/FourthReport_UpdatedTables_Volume2_Mar2021-508.pdf. November 9, 2021.
- Chen J, Jiang J, Zhang F, et al. 2004. Cytotoxic effects of environmentally relevant chlorophenols on L929 cells and their mechanisms. *Cell Biol Toxicol* 20(3):183-196.
- Chen L, Li N, Liu Y, et al. 2021. A new 3D model for genotoxicity assessment: EpiSkin Micronucleus Assay. *Mutagenesis* 36(1):51-61. <http://doi.org/10.1093/mutage/geaa003>.
- Chernoff N, Setzer RW, Miller DB, et al. 1990. Effects of chemically induced maternal toxicity on prenatal development in the rat. *Teratology* 42:651-658.
- Chiou CT, Freed VH, Peters LJ, et al. 1980. Evaporation of solutes from water. *Environ Int* 3:231-236.
- CITI. 2019. Bioaccumulation: Aquatic/sediment (CASRN: 95-57-8). Chemical Inspection and Testing Institute. https://www.nite.go.jp/chem/jcheck/detail.action?cno=95-57-8&mno=3-0895&request_locale=en. December 18, 2019.
- Clerhata D, Kovacikova Z, Veningerova M, et al. 1996. The effect of 2,4-dichlorophenol on lipid peroxidation in tissues of guinea pigs with different ascorbic acid intake. *Ind Health* 34:415-419.
- Clewell HJ, Andersen ME. 1985. Risk assessment extrapolations and physiological modeling. *Toxicol Ind Health* 1(4):111-131.
- Coggon D, Pannett B, Winter P. 1991. Mortality and incidence of cancer at four factories making phenoxy herbicides. *Br J Ind Med* 48:173-178.
- 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.
- Cook LW, Zach FW, Klosterman HJ, et al. 1983. Comparison of free and total residues of (2,4-dichlorophenoxy)acetic acid and 2,4-dichlorophenol in millet resulting from postemergence and preharvest treatment. *J Agric Food Chem* 31:268-271.
- Coombs HI, Hele TS. 1926. Studies in the sulphur metabolism of the dog. IV. The mechanism of mercapturic acid formation in the dog. *Biochem J* 20:606-612.
- Coughtrie MW. 2015. Ontogeny of human conjugating enzymes. *Drug Metab Lett* 9(2):99-108. <http://doi.org/10.2174/1872312809666150602151213>.
- Da Silva GN, De Camargo EA, Salvadori DM, et al. 2007. Genetic damage in human peripheral lymphocytes exposed to antimicrobial endodontic agents. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 104(2):e58-61. <http://doi.org/10.1016/j.tripleo.2007.02.009>.

8. REFERENCES

- Dai J, Sloat AL, Wright MW, et al. 2005. Role of phenoxy radicals in DNA adduction by chlorophenol xenobiotics following peroxidase activation. *Chem Res Toxicol* 18(4):771-779. <http://doi.org/10.1021/tx0500023>.
- Dai X, Qiu L, Rashida C, et al. 2021. 2,4-DCP compromises the fertilization capacity of mouse oocytes. *J Cell Physiol* 236(11):7605-7611. <http://doi.org/10.1002/jcp.30403>.
- Daniel FB, Robinson M, Olson GR, et al. 1993. Ten and ninety-day toxicity studies of 2-chlorophenol in Sprague-Dawley rats. *Drug Chem Toxicol* 16(3):277-291. <http://doi.org/10.3109/01480549309081820>.
- Dasappa SM, Loehr RC. 1991. Toxicity reduction in contaminated soil bioremediation processes. *Water Res* 25(9):1121-1130.
- de Moraes SM, Wells PG. 1988. Deficiency in bilirubin UDP-glucuronyl transferase as a genetic determinant of acetaminophen toxicity. *J Pharmacol Exp Ther* 247(1):323-331.
- de Moraes SM, Utrecht JP, Wells PG. 1992. Decreased glucuronidation and increased bioactivation of acetaminophen in Gilbert's syndrome. *Gastroenterology* 102(2):577-586.
- de Moraes P, Stoichev T, Basto MC, et al. 2012. Extraction and preconcentration techniques for chromatographic determination of chlorophenols in environmental and food samples. *Talanta* 89:1-11. <http://doi.org/10.1016/j.talanta.2011.12.044>.
- De Vault DS. 1985. Contaminants in fish from Great Lakes harbors and tributary mouths. *Arch Environ Contam Toxicol* 14:587-594.
- Deichmann WB, Mergard EG. 1948. Comparative evaluation of methods employed to express the degree of toxicity of a compound. *J Ind Hyg Toxicol* 30(6):373-378.
- DeMarini DM, Brooks HG, Parkes DG, Jr. 1990. Induction of prophage lambda by chlorophenols. *Environ Mol Mutagen* 15(1):1-9.
- Demers PA, Davies HW, Friesen MC, et al. 2006. Cancer and occupational exposure to pentachlorophenol and tetrachlorophenol (Canada). *Cancer Causes Control* 17(6):749-758. <http://doi.org/10.1007/s10552-006-0007-9>.
- Dodd DE, Pluta LJ, Sochaski MA, et al. 2012. Subchronic hepatotoxicity evaluation of 2,3,4,6-tetrachlorophenol in Sprague-Dawley rats. *J Toxicol* 2012:376246. <http://doi.org/10.1155/2012/376246>.
- Dodson RE, Boronow KE, Susmann H, et al. 2020. Consumer behavior and exposure to parabens, bisphenols, triclosan, dichlorophenols, and benzophenone-3: Results from a crowdsourced biomonitoring study. *Int J Hyg Environ Health*:113624. <http://doi.org/10.1016/j.ijheh.2020.113624>.
- Dodson RE, Setzer RW, Spengler JD, et al. 2021. Influence of living in the same home on biomonitoring levels of consumer product chemicals. *J Expo Sci Environ Epidemiol* <http://doi.org/10.1038/s41370-021-00368-8>.
- DOE. 2018a. Table 3: Protective Action Criteria (PAC) Rev. 29a based on applicable 60-minute AEGLs, ERPGs, or TEELs. The chemicals are listed by CASRN. June 2018. Oak Ridge, TN: U.S. Department of Energy. https://sp.eota.energy.gov/pac/docs/Revision_29A_Table3.pdf. July 26, 2018.
- DOE. 2018b. Protective Action Criteria (PAC) with AEGLs, ERPGs, & TEELs: Rev. 29A, June 2018. Oak Ridge, TN: U.S. Department of Energy. <https://sp.eota.energy.gov/pac/>. July 26, 2018.
- Dohi T, Terada H, Anarnura S, et al. 1989. The anti-inflammatory effects of phenolic dental medicaments as determined by mouse ear edema assay. *Jpn J Pharmacol* 49(4):535-639.
- Eisenreich SJ, Looney BB, Thornton JD. 1981. Airborne organic contaminants in the Great Lakes ecosystem. *Environ Sci Technol* 15(1):30-38.
- Engst RN, Macho RM, Kujawa M, et al. 1976. The metabolism of lindane and its metabolites gamma-2,3,4,5,6-pentachlorocyclohexene, pentachlorobenzene, and pentachlorophenol in rats and the pathways of lindane metabolism. *J Environ Sci Health B* 11(2):95-117.
- EPA. 1979. Sources of toxic pollutants found in influents to sewage treatment plants. VI. Integrated interpresentation. Washington, DC: U.S. Environmental Protection Agency. EPA440481008.

8. REFERENCES

- EPA. 1980. Ambient water quality criteria for chlorinated phenols. Washington, DC: U.S. Environmental Protection Agency. <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P100712V.txt>. December 19, 2019.
- EPA. 1982. Exposure and risk assessment for chlorinated phenols (2-chlorophenol, 2,4-dichlorophenol, 2,4,6-trichlorophenol). U.S. Environmental Protection Agency. EPA440485007. PB85211951.
- EPA. 1986. 2,3,4,6-Tetrachlorophenol: 90-day subchronic oral toxicity study in rats. U.S. Environmental Protection Agency. Study No. 410-2522. (Formerly cited as American Biogenics)
- EPA. 1987a. Teratologic evaluation of 2,3,4,6-tetrachlorophenol (CASRN 58-90-2) administered to CD rats on gestational days 6 through 15. Final report. Research Triangle Park, NC: U.S. Environmental Protection Agency. PB88176151. EPA530SW88017A.
- EPA. 1987b. Teratologic evaluation of 2,3,4,6-tetrachlorophenol (CASRN 58-90-2) administered to CD rats on gestational days 6 through 15. Appendices 1-9. Research Triangle Park, NC: U.S. Environmental Protection Agency. PB88176151. EPA530SW88017A.
- EPA. 1994. Emergency planning and community right-to-know EPCRA Section 313: List of toxic chemicals within the chlorophenols category. U.S. Environmental Protection Agency. EPA745B95004. PB95271268.
- EPA. 2000. Method 526. Determination of selected semivolatile organic compounds in drinking water by solid phase extraction and capillary column gas chromatography/ mass spectrometry (GC/MS). Cincinnati, OH: U.S. Environmental Protection Agency. <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P1005E6I.txt>. December 16, 2019.
- 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. EPA260B05001.
- EPA. 2007a. Provisional peer-reviewed toxicity values for 2,4,6-trichlorophenol (CASRN 88-06-2)). Washington, DC: U.S. Environmental Protection Agency. EPA690R07036F. <https://cfpub.epa.gov/ncea/pprtv/documents/Trichlorophenol246.pdf>. December 15, 2019.
- EPA. 2007b. Provisional peer-reviewed toxicity values for 2-chlorophenol (CASRN 95-57-8). Washington, DC: U.S. Environmental Protection Agency. EPA690R07008F. <https://cfpub.epa.gov/ncea/pprtv/documents/Chlorophenol2.pdf>. December 15, 2019.
- EPA. 2007c. Provisional peer-reviewed toxicity values for 2,4-dichlorophenol (CASRN 120-83-2). Washington, DC: U.S. Environmental Protection Agency. EPA690R07013F. <https://cfpub.epa.gov/ncea/pprtv/documents/Dichlorophenol24.pdf>. December 15, 2019.
- EPA. 2007d. Provisional peer-reviewed toxicity values for 2,4,5-trichlorophenol (CASRN 95-95-4). Washington, DC: U.S. Environmental Protection Agency. EPA690R07035F. <https://cfpub.epa.gov/ncea/pprtv/documents/Trichlorophenol245.pdf>. December 15, 2019.
- EPA. 2009. National primary drinking water regulations. Washington, DC: U.S. Environmental Protection Agency. EPA816F090004. https://www.epa.gov/sites/production/files/2016-06/documents/npwdr_complete_table.pdf. September 7, 2017.
- EPA. 2012. Estimation Programs Interface Suite™ for Microsoft® Windows, v 4.11. Washington, DC: U.S. Environmental Protection Agency. <https://www.epa.gov/tsca-screening-tools/epi-suitetm-estimation-program-interface>. (English)
- EPA. 2018a. 2018 Edition of the drinking water standards and health advisories. Washington, DC: U.S. Environmental Protection Agency. EPA822S12001. <https://semspub.epa.gov/work/HQ/100002014.pdf>. July 25, 2018.
- EPA. 2018b. Acute Exposure Guideline Levels (AEGs) values. U.S. Environmental Protection Agency. https://www.epa.gov/sites/production/files/2018-08/documents/compiled_aegls_update_27jul2018.pdf. June 5, 2019.
- Eriksson M, Hardell L, Adami HO. 1990. Exposure to dioxins as a risk factor for soft tissue sarcoma: A population-based case-control study. *J Natl Cancer Inst* 82(6):486-490.

8. REFERENCES

- Eriksson M, Hardell L, Berg N, et al. 1981. Soft-tissue sarcoma and exposure to chemical substances: A case- reference study. *Br J Ind Med* 38:27-33.
- Exon JH, Koller LD. 1982. Effects of transplacental exposure to chlorinated phenols. *Environ Health Perspect* 46:137-140.
- Exon JH, Koller LD. 1983a. Alteration of transplacental carcinogenesis by chlorinated phenols. In: Jolley RL, Brungs WA, Cotruvo WA, et al., eds. *Water chlorination: Environmental impact and health effects*. Vol. 4, Book 2. Ann Arbor, MI: Ann Arbor Science, 1177-1188.
- Exon JH, Koller LD. 1983b. Effects of chlorinated phenols on immunity in rats. *Int J Immunopharmacol* 5(2):131-136.
- Exon JH, Koller LD. 1985. Toxicity of 2-chlorophenol, 2,4-dichlorophenol and 2,4,6-trichlorophenol. In: Jolley RL, ed. *Water chlorination: Chemistry, environmental impact and health effects*. Vol. 5. Chelsea, MI: Lewis Publishers, 307-330.
- Exon JH, Henningsen GM, Osborne CA, et al. 1984. Toxicologic, pathologic, and immunotoxic effects of 2,4-dichlorophenol in rats. *J Toxicol Environ Health* 14:723-730.
- Fahrig R, Nilsson C, Rappe C. 1978. Genetic activity of chlorophenols and chlorophenol impurities. *Environ Sci Res* 12:325-338.
- Farquharson ME, Gage JC, Northover J. 1958. The biological action of chlorophenols. *Br J Pharmacol* 13:20-24.
- FDA. 2021. Substances added to food. U.S. Food and Drug Administration. <https://www.cfsanappsexternal.fda.gov/scripts/fdcc/?set=FoodSubstances>. February 3, 2021.
- Feng H, Ruan Y, Wu R, et al. 2019. Occurrence of disinfection by-products in sewage treatment plants and the marine environment in Hong Kong. *Ecotoxicol Environ Saf* 181:404-411. <http://doi.org/10.1016/j.ecoenv.2019.06.034>.
- Fenske RA, Horstman SW, Bentley RK. 1987. Assessment of dermal exposure to chlorophenols in timber mills. *Appl Ind Hyg* 2(4):143-147.
- Folke J, Lindgaard-Joergensen P. 1985. Organics in wheat and rye straw pulp bleaching and combined mill effluents. I. Chemical characterization and biodegradation studies. *Toxicol Environ Chem* 10:1-24.
- Fragiadakis A, Sotiriou N, Korte F. 1981. Absorption, balance and metabolism of carbon-14-labeled 2,4,6-trichlorophenol in hydroponic tomato plants. *Chemosphere* 10:1315-1320.
- Fu J, Zhang X, Chen P, et al. 2016. Endoplasmic reticulum stress is involved in 2,4-dichlorophenol-induced hepatotoxicity. *J Toxicol Sci* 41(6):745-756. <http://doi.org/10.2131/jts.41.745>.
- Fytianos K, Voudrias E, Kokkalis E. 2000. Sorption-desorption behaviour of 2,4-dichlorophenol by marine sediments. *Chemosphere* 40(1):3-6. [http://doi.org/10.1016/s0045-6535\(99\)00214-3](http://doi.org/10.1016/s0045-6535(99)00214-3).
- Galloway SM, Armstrong MJ, Reuben C, et al. 1987. Chromosome aberrations and sister chromatid exchanges in Chinese hamster ovary cells: Evaluations of 108 chemicals. *Environ Mol Mutagen* 10:1-175.
- Galloway SM, Miller JE, Armstrong MJ, et al. 1998. DNA synthesis inhibition as an indirect mechanism of chromosome aberrations: Comparison of DNA-reactive and non-DNA-reactive clastogens. *Mutat Res* 400(1-2):169-186.
- Garabedian MJ, Hoppin JA, Tolbert PE, et al. 1999. Occupational chlorophenol exposure and non-Hodgkin's lymphoma. *J Occup Environ Med* 41(4):267-272.
- Genthner BRS, Price WA, Pritchard PH. 1989. Anaerobic degradation of chloroaromatic compounds in aquatic systems under a variety of enrichment conditions. *Appl Environ Microbiol* 55:1466-1471.
- George SE, Whitehouse DA, Claxton LD. 1992. Genotoxicity of 2,4,5-trichlorophenoxyacetic acid biodegradation products in the Salmonella reversion and lambda prophage-induction bioassays. *Environ Toxicol Chem* 11:733-740.
- Gomez MJ, Bruneau C, Soyer N, et al. 1988. Thermal degradation of chlorophenoxy acid herbicides. *J Agric Food Chem* 36:649-653.
- Gossett RW, Brown DA, Young DR. 1983. Predicting the bioaccumulation of organic compounds in marine organisms using octanol/water partition coefficients. *Mar Pollut Bull* 14:387-392.

8. REFERENCES

- Grimvall A, Jonsson S, Karlsson S, et al. 1991. Organic halogens in unpolluted waters and large bodies of water receiving bleach plant effluents. *TAPPI J* 74(5):197-203.
- Gu J, Zhou W, Jiang B, et al. 2016. Effects of biochar on the transformation and earthworm bioaccumulation of organic pollutants in soil. *Chemosphere* 145:431-437. <http://doi.org/10.1016/j.chemosphere.2015.11.106>.
- Gulcan HO, Liu Y, Duffel MW. 2008. Pentachlorophenol and other chlorinated phenols are substrates for human hydroxysteroid sulfotransferase hSULT2A1. *Chem Res Toxicol* 21(8):1503-1508. <http://doi.org/10.1021/tx800133d>.
- Guo J, Wu C, Zhang J, et al. 2019. Anthropometric measures at age 3 years in associations with prenatal and postnatal exposures to chlorophenols. *Chemosphere* 228:204-211. <http://doi.org/10.1016/j.chemosphere.2019.04.127>.
- Gurney BF, Lantenschlager DP. 1982. Nearly non-toxic parachlorophenol antiseptics. *J Dent Assoc S Afr* 37(12):815-818.
- Haggbloom MM, Young LY. 1990. Chlorophenol degradation coupled to sulfate reduction. *Appl Environ Microbiol* 56(11):3255-3260.
- Hagiwara M, Watanabe E, Barrett JC, et al. 2006. Assessment of genotoxicity of 14 chemical agents used in dental practice: Ability to induce chromosome aberrations in Syrian hamster embryo cells. *Mutat Res* 603(2):111-120. <http://doi.org/10.1016/j.mrgentox.2005.08.011>.
- Haimi J, Sahninen J, Huhta V, et al. 1992. Bioaccumulation of organochlorine compounds in earthworms. *Soil Biol Biochem* 24(12):1699-1703.
- Hallinger DR, Lindsay HB, Paul Friedman K, et al. 2020. Respirometric screening and characterization of mitochondrial toxicants within the toxcast phase I and II chemical libraries. *Toxicol Sci* 176(1):175-192. <http://doi.org/10.1093/toxsci/kfaa059>.
- Hamaguchi F, Tsutsui T. 2000. Assessment of genotoxicity of dental antiseptics: Ability of phenol, guaiacol, p-phenolsulfonic acid, sodium hypochlorite, p-chlorophenol, m-cresol or formaldehyde to induce unscheduled DNA synthesis in cultured Syrian hamster embryo cells. *Jpn J Pharmacol* 83(3):273-276.
- Hardell L, Eriksson M. 1988. The association between soft tissue sarcomas and exposure to phenoxyacetic acids. A new case-referent study. *Cancer* 62(3):652-656. [http://doi.org/10.1002/1097-0142\(19880801\)62:3<652::aid-cnrcr2820620334>3.0.co;2-4](http://doi.org/10.1002/1097-0142(19880801)62:3<652::aid-cnrcr2820620334>3.0.co;2-4).
- Hardell L, Eriksson M, Degerman A. 1995. Meta-analysis of 4 Swedish case-control studies on exposure to pesticides as risk-factor for soft-tissue sarcoma including the relation to tumor-localization and histopathological type. *Int J Oncol* 6(4):847-851.
- Hardell L, Eriksson M, Lenner P, et al. 1981. Malignant lymphoma and exposure to chemicals, especially organic solvents, chlorophenols and phenoxy acids: A case-control study. *Br J Cancer* 43:169-176.
- Harley KG, Berger KP, Kogut K, et al. 2019. Association of phthalates, parabens and phenols found in personal care products with pubertal timing in girls and boys. *Hum Reprod* 34(1):109-117. <http://doi.org/10.1093/humrep/dey337>.
- Harris RM, Kirk CJ, Waring RH. 2005. Non-genomic effects of endocrine disrupters: Inhibition of estrogen sulfotransferase by phenols and chlorinated phenols. *Mol Cell Endocrinol* 244(1-2):72-74. <http://doi.org/10.1016/j.mce.2005.05.013>.
- Harrison JW, Madonia JV. 1971. The toxicity of parachlorophenol. *Oral Surg Oral Med Oral Pathol* 32(1):90-99. [http://doi.org/10.1016/0030-4220\(71\)90254-4](http://doi.org/10.1016/0030-4220(71)90254-4).
- Hasegawa R, Hirata-Koizumi M, Takahashi M, et al. 2005. Comparative susceptibility of newborn and young rats to six industrial chemicals. *Congenit Anom (Kyoto)* 45(4):137-145. <http://doi.org/10.1111/j.1741-4520.2005.00083.x>.
- Hattula ML, Knuutinen J. 1985. Mutagenesis of mammalian cells in culture by chlorophenols, chlorocatechols and chloroguaiacols. *Chemosphere* 14:1617-1625.
- Hattula ML, Wasenius VM, Krees R, et al. 1981. Acute and short-term toxicity of 2,3,4,6-tetrachlorophenol in rats. *Bull Environ Contam Toxicol* 26(6):795-800.

8. REFERENCES

- Haworth S, Lawlor T, Mortelmans K, et al. 1983. Salmonella mutagenicity test results for 250 chemicals. *Environ Mutagen* 5(Suppl 1):3-142.
- Hencke JW, Lockwood DD. 1978. Acute toxicological properties and industrial handling hazards of 2,4-dichlorophenol. Midland, MI: Dow Chemical USA.
- Hill RH, To T, Holler JS, et al. 1989. Residues of chlorinated phenols and phenoxy acid herbicides in the urine of Arkansas children. *Arch Environ Contam Toxicol* 18:469-474.
- Hilliard CA, Armstrong MJ, Bradt CI, et al. 1998. Chromosome aberrations in vitro related to cytotoxicity of nonmutagenic chemicals and metabolic poisons. *Environ Mol Mutagen* 31(4):316-326.
- Hites RA, Jungclaus GA, Lopez-Avila V, et al. 1979. Potentially toxic organic compounds in industrial wastewaters and river systems: Two case studies. *ACS Symp Ser* 94:63-90.
- Hoak RD. 1957. The causes of tastes and odors in drinking water. *Water Sewage Works* 104:243-247.
- Hodin F, Boren H, Grimvall A, et al. 1991. Formation of chlorophenols and related compounds in natural and technical chlorination processes. *Water Sci Technol* 24(3-4):403-410.
- Holmes BE, Smeester L, Fry RC, et al. 2019. Disinfection byproducts bind human estrogen receptor-alpha. *Environ Toxicol Chem* 38(5):956-964. <http://doi.org/10.1002/etc.4377>.
- Hood RD, Patterson BL, Thacker GT, et al. 1979. Prenatal effects of 2,4,5-trichlorophenol and phenoxyacetic acid in mice. *J Environ Sci Health C Environ Carcinog Ecotoxicol Rev* 13(3):189-204.
- Hooiveld M, Heederik DJ, Kogevinas M, et al. 1998. Second follow-up of a Dutch cohort occupationally exposed to phenoxy herbicides, chlorophenols, and contaminants. *Am J Epidemiol* 147(9):891-901.
- Hoppin JA, Tolbert PE, Herrick RF, et al. 1998. Occupational chlorophenol exposure and soft tissue sarcoma risk among men aged 30-60 years. *Am J Epidemiol* 148(7):693-703.
- Horstman SW, Rossner A, Kalman DA, et al. 1989. Penetration of pentachlorophenol and tetrachlorophenol through human skin. *J Environ Sci Health A Environ Sci Eng Toxic Hazard* 24(3):229-242.
- Hughes MF, Shrivastava SP, Fisher HL, et al. 1993. Comparative in vitro percutaneous-absorption of p-substituted phenols through rat skin using static and flow-through diffusion-systems. *Toxicol in Vitro* 71:221-227.
- Huq AS, Ho NFH, Husari N, et al. 1986. Permeation of water contaminative phenols through hairless mouse skin. *Arch Environ Contam Toxicol* 15(5):557-566.
- Hwang HM, Hodson RE, Lee RF. 1986. Degradation of phenol and chlorophenols by sunlight and microbes in estuarine water. *Environ Sci Technol* 20(10):1002-1007. <http://doi.org/10.1021/es00152a006>.
- Hyun S, Lee LS. 2004. Hydrophilic and hydrophobic sorption of organic acids by variable charge soils: Effect of chemical acidity and acidic functional group. *Environ Sci Technol* 38(20):5413-5419. <http://doi.org/10.1021/es0494914>.
- IARC. 1999. Polychlorophenols and their sodium salts. IARC Monographs on the evaluation of carcinogenic risks to humans. Lyon, France: International Agency for Research on Cancer. Vol. 71, 769-828. <http://publications.iarc.fr/89>. December 15, 2019.
- IARC. 2019. Pentachlorophenol and some related compounds. IARC Monographs on the evaluation of carcinogenic risks to humans. Lyon, France: International Agency for Research on Cancer. Vol. 117, 141-168. <http://www.inchem.org/documents/iarc/iarcmono/v117iarc.pdf>. December 6, 2019.
- Ibeto C, Anekwe C, Ihedioha J. 2019. Human exposure risk to semivolatile organic compounds via soil in automobile workshops in Awka, South Eastern, Nigeria. *Environ Sci Pollut Res Int* 26(16):16249-16260. <http://doi.org/10.1007/s11356-019-04981-x>.
- Innes JRM, Ulland BM, Valero MG, et al. 1969. Bioassay of pesticides and industrial chemicals for tumorigenicity in mice: A preliminary note. *J Natl Cancer Inst* 42:1101-1104.
- IRIS. 1988. Chemical assessment summary: 2,3,4,6-Tetrachlorophenol (CASRN 58-90-2). Integrated Risk Information System. U.S. Environmental Protection Agency.

8. REFERENCES

- https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/0108_summary.pdf. December 19, 2019.
- IRIS. 1990. Chemical assessment summary: 2,4,6-Trichlorophenol (CASRN 88-06-2). Integrated Risk Information System. U.S. Environmental Protection Agency. https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/0122_summary.pdf#nameddest=woe. December 19, 2019.
- IRIS. 2002a. Chemical assessment summary: 2-Chlorophenol (CASRN 95-57-8). Integrated Risk Information System. Washington, DC: U.S. Environmental Protection Agency. https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/0303_summary.pdf. December 6, 2019.
- IRIS. 2002b. Chemical assessment summary: 2,4-Dichlorophenol (CASRN 120-83-2). Integrated Risk Information System. Washington, DC: U.S. Environmental Protection Agency. https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/0041_summary.pdf. December 6, 2019.
- IRIS. 2002c. Chemical assessment summary: 2,4,5-Trichlorophenol (CASRN 95-95-4). Integrated Risk Information System. Washington, DC: U.S. Environmental Protection Agency. https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/0121_summary.pdf. December 6, 2019.
- IRIS. 2021. Alphabetical index. Integrated Risk Information System. Washington, DC: U.S. Environmental Protection Agency. https://cfpub.epa.gov/ncea/iris_drafts/atoz.cfm. February 3, 2021.
- Isensee AR, Jones GE. 1971. Absorption and translocation of root and foliage applied 2,4-dichlorophenol, 2,7-dichlorodibenzo-p-dioxin, and 2,3,7,8-tetrachlorodibenzo-p-dioxin. *J Agric Food Chem* 19(6):1210-1214. <http://doi.org/10.1021/jf60178a045>.
- Ismail RM, Salminen L, Korte F. 1977. Distribution of topically applied environmental chemicals in the rabbit eye. *Chemosphere* 6:797-802.
- Izushi F, Mori T, Ogata M. 1988. Effect of phenol and halogenated phenols on energy transfer reactions of rat liver mitochondria. *Acta Med Okayama* 42(1):7-14. <http://doi.org/10.18926/AMO/31035>.
- Janik F, Wolf HU. 1992. The calcium transport-ATPase of human erythrocytes as an in vitro toxicity test system: Acute effects of some chlorinated compounds. *J Appl Toxicol* 12(5):351-358.
- Jansson K, Jansson V. 1986. Inability of chlorophenols to induce 6 thioguanine-resistant mutants in V79 Chinese hamster cells. *Mutat Res* 171(2-3):165-168.
- Jansson K, Jansson V. 1992. Genotoxicity of 2,4,6-trichlorophenol in V79 Chinese hamster cells. *Mutat Res* 280(3):175-179. [http://doi.org/10.1016/0165-1218\(92\)90046-3](http://doi.org/10.1016/0165-1218(92)90046-3).
- Jerschow E, Parikh P, McGinn AP, et al. 2014. Relationship between urine dichlorophenol levels and asthma morbidity. *Ann Allergy Asthma Immunol* 112(6):511-518 e511. <http://doi.org/10.1016/j.anai.2014.03.011>.
- Judis J. 1982. Binding of selected phenol derivatives to human serum proteins. *J Pharm Sci* 71(10):1145-1147. <http://doi.org/10.1002/jps.2600711017>.
- Juhl U, Blum K, Witte I. 1989. The in vitro metabolites of 2,4,6-trichlorophenol and their DNA strand breaking properties. *Chem Biol Interact* 69:333-344.
- Juhl U, Blum JK, Butte W, et al. 1991. The induction of DNA strand breaks and formation of semiquinone radicals by metabolites of 2,4,5-trichlorophenol. *Free Radic Res Commun* 11(6):295-305.
- Junk GA, Richard JJ, Avery MJ, et al. 1986. Organic compounds from coal combustion. *ACS Symp Ser* 319:109-123.
- Kafkewitz D, Fava F, Armenante PM. 1996. Effect of vitamins on the aerobic degradation of 2-chlorophenol, 4-chlorophenol, and 4-chlorobiphenyl. *Appl Microbiol Biotechnol* 46(4):414-421. <http://doi.org/10.1007/bf00166239>.
- Kaioumova DF, Khabutdinova L. 1998. Cytogenetic characteristics of herbicide production workers in Ufa. *Chemosphere* 37(9-12):1755-1759.

8. REFERENCES

- Karapally JC, Saha JG, Lee YW. 1973. Metabolism of lindane ^{14}C in the rabbit: Ether soluble urinary metabolites. *J Agric Food Chem* 21:811-818.
- Karasek FW, Charbonneau GM, Reuel GJ, et al. 1987. Determination of organic compounds leached from municipal incinerator fly ash by water at different pH levels. *Anal Chem* 59(7):1027-1031. <http://doi.org/10.1021/ac00134a021>.
- Kavlock RJ. 1990. Structure-activity relationships in the developmental toxicity of substituted phenols: in vivo effects. *Teratology* 41(1):43-59. <http://doi.org/10.1002/tera.1420410106>.
- Kawaguchi H. 1992a. Determination of direct and indirect photolysis rates of 2-chlorophenol in humic acid solution and natural waters. *Chemosphere* 25(5):635-641.
- Kawaguchi H. 1992b. Photolysis of 2-chlorophenol in natural waters. *J Contam Hydrol* 9:105-114.
- Kelley AS, Banker M, Goodrich JM, et al. 2019. Early pregnancy exposure to endocrine disrupting chemical mixtures are associated with inflammatory changes in maternal and neonatal circulation. *Sci Rep* 9(1):5422. <http://doi.org/10.1038/s41598-019-41134-z>.
- Kilzer L, Scheunert I, Geyer H, et al. 1979. Laboratory screening of the volatilization rates of organic chemicals from water and soil. *Chemosphere* 8:751-761.
- Kim S, Hwang SJ, Choi W. 2005. Visible light active platinum-ion-doped TiO_2 photocatalyst. *J Phys Chem B* 109(51):24260-24267. <http://doi.org/10.1021/jp055278y>.
- Kimber I, Weisenberger C. 1991. Anamnestic responses to contact allergens: application in the murine local lymph node assay. *J Appl Toxicol* 11(2):129-133. <http://doi.org/10.1002/jat.2550110211>.
- Kinae N, Hashizume T, Makita T, et al. 1981. Studies on the toxicity of pulp and paper mill effluents. I. Mutagenicity. *Water Res* 15:17-24.
- Kintz P, Tracqui A, Mangin P. 1992. Accidental death caused by the absorption of 2,4-dichlorophenol through the skin. *Arch Toxicol* 66:298-299.
- Kitchin KT, Brown JL. 1988. Biochemical effects of three chlorinated phenols in rat liver. *Toxicol Environ Chem* 16:165-172.
- Kitunen V, Valo RJ, Salkinoja-Salonen M. 1985. Analysis of chlorinated phenols, phenoxyphenols and dibenzofurans around wood preserving facilities. *Int J Anal Chem* 20:13-28.
- Kitunen VH, Valo RJ, Salkinoja-Salonen MS. 1987. Contamination of soil around wood-preserving facilities by polychlorinated aromatic compounds. *Environ Sci Technol* 21(1):96-101.
- Kiyohara H, Hatta T, Ogawa Y, et al. 1992. Isolation of *Pseudomonas pickettii* strains that degrade 2,4,6-trichlorophenol and their dechlorination of chlorophenols. *Appl Environ Microbiol* 58(4):1276-1283.
- Kjeldsen P, Kjolholt J, Schultz B, et al. 1990. Sorption and degradation of chlorophenols, nitrophenols and organophosphorus pesticides in the subsoils under landfills: Laboratory studies. *J Contam Hydrol* 6(2):165-184.
- Kleinman GD, Horstman SW, Kalman DA, et al. 1986. Industrial hygiene, chemical and biological assessments of exposures to a chlorinated phenolic sapstain control agent. *Am Ind Hyg Assoc J* 47(12):731-741.
- Knackmuss HJ, Hellwig M. 1978. Utilization and cooxidation of chlorinated phenols by *Pseudomonas* sp. B 13. *Arch Microbiol* 117(1):1-7. <http://doi.org/10.1007/bf00689343>.
- Knight AW, Billinton N, Cahill PA, et al. 2007. An analysis of results from 305 compounds tested with the yeast RAD54-GFP genotoxicity assay (GreenScreen GC)-including relative predictivity of regulatory tests and rodent carcinogenesis and performance with autofluorescent and coloured compounds. *Mutagenesis* 22(6):409-416. <http://doi.org/10.1093/mutage/gem036>.
- Kobayashi S, Toida S, Kawamura H, et al. 1972. [Chronic toxicity of 2,4-dichlorophenol in mice: A simple design for the toxicity of residual metabolites of pesticides]. *Toho Igakkai Zasshi* 19:356-362 (Japanese)
- Kochany J, Bolton JR. 1991. Mechanism of photodegradation of aqueous organic pollutants. 1. EPR spin-trapping technique for the determination of hydroxyl radical rate constants in the photooxidation of chlorophenols following the photolysis of hydrogen peroxide. *J Phys Chem* 95(13):5116-5120. <http://doi.org/10.1021/j100166a039>.

8. REFERENCES

- Kogevinas M, Saracci R, Bertazzi PA, et al. 1992. Cancer mortality from soft-tissue sarcoma and malignant lymphomas in an international cohort of workers exposed to chlorophenoxy herbicides and chlorophenols. *Chemosphere* 25(7-10):1071-1076.
- Kogevinas M, Becher H, Benn T, et al. 1997. Cancer mortality in workers exposed to phenoxy herbicides, chlorophenols, and dioxins. An expanded and updated international cohort study. *Am J Epidemiol* 145(12):1061-1075.
- Kondo T, Yamamoto H, Tatarazako N, et al. 2005. Bioconcentration factor of relatively low concentrations of chlorophenols in Japanese medaka. *Chemosphere* 61(9):1299-1304. <http://doi.org/10.1016/j.chemosphere.2005.03.058>.
- Koransky W, Munch G, Noack G, et al. 1975. Biodegradation of alpha-hexachlorocyclohexane. V. Characterization of the major urinary metabolites. *Naunyn Schmiedebergs Arch Pharmacol* 288(1):65-78.
- Korte F, Freitag D, Geyer H, et al. 1978. Ecotoxicologic profile analysis: A concept of establishing ecotoxicologic priority lists for chemicals. *Chemosphere* 7:79-102.
- Krijgsheld KR, Van der gen A. 1986. Assessment of the impact of the emission of certain organochloride compounds on the aquatic environment. Part I. Monochlorophenols and 2,4-dichlorophenol. *Chemosphere* 15(7):825-860.
- Krishnan K, Anderson ME, Clewell HJ, et al. 1994. Physiologically based pharmacokinetic modeling of chemical mixtures. In: Yang RSH, ed. *Toxicology of chemical mixtures. Case studies, mechanisms, and novel approaches*. San Diego, CA: Academic Press, 399-437.
- Ku Y, Leu RM, Lee KC. 1996. Decomposition of 2-chlorophenol in aqueous solution by UV irradiation with the presence of titanium dioxide. *Water Res* 30(11):2569-2578.
- Kubu T, Urano K, Utsumi H. 2002. Mutagenicity characteristics of 255 environmental chemicals. *J Health Sci* 48(6):545-554. <http://doi.org/10.1248/jhs.48.545>
- Kusters E, Lauwerys R. 1990. Biological monitoring of exposure to monochlorobenzene. *Int Arch Occup Environ Health* 62(4):329-331. <http://doi.org/10.1007/bf00640842>.
- Kutz FW, Cook BT, Carter-Pokras OD, et al. 1992. Selected pesticide residues and metabolites in urine from a survey of the U.S. general population. *J Toxicol Environ Health* 37:277-291.
- Ladumor MK, Bhatt DK, Gaedigk A, et al. 2019. Ontogeny of hepatic sulfotransferases and prediction of age-dependent fractional contribution of sulfation in acetaminophen metabolism. *Drug Metab Dispos* 47(8):818-831. <http://doi.org/10.1124/dmd.119.086462>.
- Lampi P, Tuomisto J, Hakulinen T, et al. 2008. Follow-up study of cancer incidence after chlorophenol exposure in a community in southern Finland. *Scand J Work Environ Health* 34(3):230-233.
- Leuenberger C, Ligocki MP, Pankow JF. 1985. Trace organic compounds in rain. IV. Identities, concentrations, and scavenging mechanisms for phenols in urban air and rain. *Environ Sci Technol* 19:1053-1058.
- Lindross L, Koskinen H, Mutanen P, et al. 1987. Urinary chlorophenols in sawmill workers. *Int Arch Occup Environ Health* 59:463-467.
- Liu D, Pacepavicius G. 1990. A systematic study of the aerobic and anaerobic biodegradation of 18 chlorophenols and 3 cresols. *Toxic Assess* 5(4):367-388.
- Liu NR, Yang K, Li WT, et al. 2020a. Evaluation of the inhibition of chlorophenols towards human cytochrome P450 3A4 and differences among various species. *Sci Total Environ* 724:138187. <http://doi.org/10.1016/j.scitotenv.2020.138187>.
- Liu J, Olson C, Qiu N, et al. 2020b. Differential cytotoxicity of haloaromatic disinfection byproducts and lead co-exposures against human intestinal and neuronal cells. *Chem Res Toxicol* 33(9):2401-2407. <http://doi.org/10.1021/acs.chemrestox.0c00157>.
- Liu Y, Zhu D, Zhao Z, et al. 2021. Comparative cytotoxicity studies of halophenolic disinfection byproducts using human extended pluripotent stem cells. *Chemosphere* 263:127899. <http://doi.org/10.1016/j.chemosphere.2020.127899>.
- Lou PH, Hansen BS, Olsen PH, et al. 2007. Mitochondrial uncouplers with an extraordinary dynamic range. *Biochem J* 407(1):129-140. <http://doi.org/10.1042/BJ20070606>.

8. REFERENCES

- Lueken A, Juhl-Strauss U, Krieger G, et al. 2004. Synergistic DNA damage by oxidative stress (induced by H₂O₂) and nongenotoxic environmental chemicals in human fibroblasts. *Toxicol Lett* 147(1):35-43.
- Lyng E. 1985. A follow-up study of cancer incidence among workers in manufacture of phenoxy herbicides in Denmark. *Br J Cancer* 52:259-270.
- Ma Y, Liu C, Lam PK, et al. 2011. Modulation of steroidogenic gene expression and hormone synthesis in H295R cells exposed to PCP and TCP. *Toxicology* 282(3):146-153. <http://doi.org/10.1016/j.tox.2011.01.024>.
- Malloy TA, Goldfarb TD, Surico MTJ. 1993. PCDDs, PCDFs, PCBs, chlorophenols (CPs) and chlorobenzenes (CBzs) in samples from various types of composting facilities in the United States. *Chemosphere* 27(1-3):325-334.
- Matsuoka A, Hayashi M, Sofuni T. 1998. In vitro clastogenicity of 19 organic chemicals found in contaminated water and 7 structurally related chemicals. *Kenkyo Hen'igen Kenkyu* 20(3):159-165.
- Matus V, Vasquez M, Vicente M, et al. 1996. Microbial mineralization of 2,4,5-trichlorophenol in soil. *Environ Sci Technol* 30:1472-1476.
- McCollister DD, Lockwood DT, Rowe VK. 1961. Toxicologic information on 2,4,5-trichlorophenol. *Toxicol Appl Pharmacol* 3:63-70.
- McGregor DB, Brown A, Cattanaach P, et al. 1988. Responses of the LS 178Ytk+/tk- mouse lymphoma cell forward mutation assay. III. 72 Coded chemicals. *Environ Mol Mutagen* 12:85-154.
- Mehmood Z, Kelly DE, Kelly SL. 1997. Cytochrome P450 3A4 mediated metabolism of 2,4-dichlorophenol. *Chemosphere* 34(11):2281-2291.
- Merriman JC. 1988. Distribution of organic contaminants in water and suspended solids of the Rainy River (Canada, USA). *Water Pollut Res J Can* 23(4):590-601.
- Meylan WM, Howard PH. 1993. Computer estimation of the atmospheric gas-phase reaction rate of organic compounds with hydroxyl radicals and ozone. *Chemosphere* 26(12):2293-2299. [http://doi.org/10.1016/0045-6535\(93\)90355-9](http://doi.org/10.1016/0045-6535(93)90355-9).
- Michalowicz J, Majsterek I. 2010. Chlorophenols, chlorocatechols and chloroguaiacols induce DNA base oxidation in human lymphocytes (in vitro). *Toxicology* 268(3):171-175. <http://doi.org/10.1016/j.tox.2009.12.009>.
- Mirabelli MC, Hoppin JA, Tolbert PE, et al. 2000. Occupational exposure to chlorophenol and the risk of nasal and nasopharyngeal cancers among U.S. men aged 30 to 60. *Am J Ind Med* 37(5):532-541.
- Mitsuda H, Murakami K, Kawai F. 1963. Effect of chlorophenol analogues on the oxidative phosphorylation in rat liver mitochondria. *Agric Biol Chem* 27:366-372.
- Miyachi T, Tsutsui T. 2005. Ability of 13 chemical agents used in dental practice to induce sister-chromatid exchanges in Syrian hamster embryo cells. *Odontology* 93(1):24-29. <http://doi.org/10.1007/s10266-005-0055-8>.
- Mohammadi L, Bazrafshan E, Noroozifar M, et al. 2017. Removing 2,4-dichlorophenol from aqueous environments by heterogeneous catalytic ozonation using synthesized MgO nanoparticles. *Water Sci Technol* 76(11-12):3054-3068. <http://doi.org/10.2166/wst.2017.479>.
- Monsanto. 1975. Initial submission: Toxicologic evaluation of: ortho-chlorophenol (final report) with cover letter dated 112691. Younger Labs. Monsanto. Submitted to the U.S. Environmental Protection Agency under TSCA Section 8E. OTS0534831. 88920000379. 8EHQ-1291-1734.
- Monsanto. 1976. Initial submission: Toxicologic investigation of: 2,4-dichlorophenol-93% (final report) with cover letter dated 112691. Younger Labs. Monsanto Company. Submitted to the U.S. Environmental Protection Agency under TSCA Section 8E. OTS0534822. 88920000370. 8EHQ-1291-1725.
- Morales A, Birkhols DA, Hrudehy SE. 1992. Analysis of pulp mill effluent contaminants in water, sediment, and fish muscle - Chlorophenols and related compounds. *Water Environ Res* 64(5):669-681.
- Muller F, Caillard L. 2011. Chlorophenols. In: Ullmann's encyclopedia of industrial chemistry. Vol. 9. 7th ed. Weinheim, Germany: Wiley-VCH. http://doi.org/10.1002/14356007.a07_001.pub2.

8. REFERENCES

- Murphy RS, Kutz FW, Strassman SC. 1983. Selected pesticide residues or metabolites in blood and urine specimens from a general population survey. *Environ Health Perspect* 48:81-86.
- Mussalo-Rauhamaa H, Pyysalo H, Antervo K. 1989. The presence of chlorophenols and their conjugates in Finnish human adipose and liver tissues. *Sci Total Environ* 83(1-2):161-172.
- Narasimhan TR, Mayura K, Clement BA, et al. 1992. Effects of chlorinated phenols on rat embryonic and hepatic mitochondrial oxidative phosphorylation. *Environ Toxicol Chem* 11(6):805-814.
- NAS/NRC. 1989. Report of the oversight committee. *Biologic markers in reproductive toxicology*. Washington, DC: National Academy of Sciences, National Research Council, National Academy Press. 15-35.
- NCI. 1968. Evaluation of carcinogenic, teratogenic and mutagenic activities of selected pesticides and industrial chemicals. 1. Carcinogenic study. Bethesda, MD: National Cancer Institute. NCI-DCCP-CG-1973-1-1. PB223159.
- NCI. 1979. Bioassay of 2,4,6-trichlorophenol for possible carcinogenicity: CAS No. 88-06-2. National Cancer Institute. NCI-CG-TR-155.
- NIOSH. 2018. NIOSH pocket guide to chemical hazards. Index of Chemical Abstracts Service Registry Numbers (CAS No.). Atlanta, GA: National Institute for Occupational Safety and Health. <https://www.cdc.gov/niosh/npg/npgdcas.html>. September 2, 2019.
- NLM. 2003a. 2,3,4,5-Tetrachlorophenol. Hazardous Substances DataBank. PubChem. U.S. National Library of Medicine. <https://pubchem.ncbi.nlm.nih.gov/source/hsdb/6765>. December 19, 2019.
- NLM. 2003b. 2,3,4,6-Tetrachlorophenol. Hazardous Substances DataBank. PubChem. U.S. National Library of Medicine. <https://pubchem.ncbi.nlm.nih.gov/source/hsdb/1338>. December 19, 2019.
- NLM. 2003c. 2,3,5,6-Tetrachlorophenol. Hazardous Substances DataBank. PubChem. U.S. National Library of Medicine. <https://pubchem.ncbi.nlm.nih.gov/source/hsdb/6766>. December 19, 2019.
- NLM. 2009a. 2,4-Dichlorophenol. Hazardous Substances DataBank. PubChem. U.S. National Library of Medicine. <https://pubchem.ncbi.nlm.nih.gov/source/hsdb/1139>. December 19, 2019.
- NLM. 2009b. 2-Chlorophenol. Hazardous Substances DataBank. PubChem. U.S. National Library of Medicine. <https://pubchem.ncbi.nlm.nih.gov/source/hsdb/1415>. December 19, 2019.
- NLM. 2009c. 4-Chlorophenol. Hazardous Substances DataBank. PubChem. U.S. National Library of Medicine. <https://pubchem.ncbi.nlm.nih.gov/source/hsdb/1414>. December 19, 2019.
- NLM. 2015. 2,4,6-Trichlorophenol. Hazardous Substances DataBank. PubChem. U.S. National Library of Medicine. <https://pubchem.ncbi.nlm.nih.gov/source/hsdb/4013>. December 19, 2019.
- NLM. 2019. 2,4,5-Trichlorophenol. PubChem. U.S. National Library of Medicine. <https://pubchem.ncbi.nlm.nih.gov/compound/7271>. December 19, 2019.
- NLM. 2020a. 2,3-Dichlorophenol. PubChem. U.S. National Library of Medicine. <https://pubchem.ncbi.nlm.nih.gov/compound/11334>. August 13, 2020.
- NLM. 2020b. 2,5-Dichlorophenol. PubChem. U.S. National Library of Medicine. <https://pubchem.ncbi.nlm.nih.gov/compound/66>. August 13, 2020.
- NLM. 2020c. 3,4-Dichlorophenol. PubChem. U.S. National Library of Medicine. <https://pubchem.ncbi.nlm.nih.gov/compound/7258>. August 13, 2020.
- NLM. 2020d. 3,5-Dichlorophenol. PubChem. U.S. National Library of Medicine. <https://pubchem.ncbi.nlm.nih.gov/compound/11571>. August 13, 2020.
- NLM. 2020e. 2,3,4-Trichlorophenol. PubChem. U.S. National Library of Medicine. <https://pubchem.ncbi.nlm.nih.gov/compound/27582>. August 13, 2020.
- Noel J, Habib AR, Thamboo A, et al. 2017. Variables associated with olfactory disorders in adults: A U.S. population-based analysis. *World J Otorhinolaryngol* 3(1):9-16. <http://doi.org/10.1016/j.wjorl.2017.02.005>.
- NTP. 1989. Toxicology and carcinogenesis studies of 2,4-dichlorophenol in F344/N rats and B6C3F1 mice (feed studies). Research Triangle Park, NC: National Toxicology Program. TR 353. https://ntp.niehs.nih.gov/ntp/htdocs/lt_rpts/tr353.pdf?utm_source=direct&utm_medium=prod&utm_campaign=ntpgoilinks&utm_term=tr353. December 12, 2019.

8. REFERENCES

- NTP. 2016. 2,4,6-Trichlorophenol. Report on carcinogens, Fourteenth edition. Research Triangle Park, NC: National Toxicology Program.
<https://ntp.niehs.nih.gov/ntp/roc/content/profiles/trichlorophenol.pdf>. December 6, 2019.
- NTP. 2021. CASRN index. In: Report on carcinogens. 15th ed. National Toxicology Program, <https://ntp.niehs.nih.gov/pubhealth/roc/index-1.html#P>. January 10, 2022.
- Oberg T, Warman K, Bergstrom J. 1989. Production of chlorinated aromatics in the post-combustion zone and boiler. *Chemosphere* 19(1-6):317-322.
- Ogata M, Taguchi T, Hirota N, et al. 1991. Quantitation of urinary chlorobenzene metabolites by HPLC: Concentrations of 4-chlorocatechol and chlorophenols in urine and of chlorobenzene in biological specimens of subjects exposed to chlorobenzene. *Int Arch Occup Environ Health* 63(2):121-128.
- OhioEPA. 2008. 2008 305(b) Report Ohio's ground water quality. State of Ohio Environmental Protection Agency. https://www.epa.ohio.gov/Portals/28/documents/gwqcp/2008_305b.pdf. November 11, 2021.
- Oikari A, Holmbom B, Anas E, et al. 1985. Ecotoxicological aspects of pulp and paper mill effluents discharged to an inland water system: Distribution in water and toxicant residues and physiological effects in caged fish (*Salmo gairdneri*). *Aquat Toxicol* 6:219-239.
- Okada K, Hiroi T, Imaoka S, et al. 2005. Inhibitory effects of environmental chemicals on protein disulfide isomerase in vitro. *Osaka City Med J* 51(2):51-63.
- Onfelt A. 1987. Spindle disturbances in mammalian cells. III. Toxicity, c-mitosis and aneuploidy with 22 different compounds. Specific and unspecific mechanisms. *Mutat Res* 182(3):135-154.
- Ono Y, Somiya I, Kawaguchi T. 1992. Genotoxic evaluation on aromatic organochlorine compounds by using umu test. *Water Sci Technol* 26(1-2):61-69. <http://doi.org/10.2166/wst.1992.0386>.
- OSHA. 2021a. Occupational safety and health standards. Subpart Z - Toxic and hazardous substances. Air contaminants. Table Z-1: Limits for air contaminants. Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1910.1000. <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1000TABLEZ1>. December 16, 2021.
- OSHA. 2021b. Occupational safety and health standards for shipyard employment. Subpart Z - Toxic and hazardous substances. Air contaminants. Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1915.1000. <https://www.osha.gov/laws-regs/regulations/standardnumber/1915/1915.1000>. December 16, 2021.
- OSHA. 2021c. Safety and health regulations for construction. Subpart D - Occupational health and environment controls. Gases, vapors, fumes, dusts, and mists. Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1926.55 Appendix A. <https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.55AppA>. December 16, 2021.
- Ott MG, Olson RA, Cook RR, et al. 1987. Cohort mortality study of chemical workers with potential exposure to the higher chlorinated dioxins. *J Occup Med* 29(5):422-429.
- Paasivirta J, Heinola K, Humpi T, et al. 1985. Polychlorinated phenols, guaiacols and catechols in environment. *Chemosphere* 14:469-491.
- Parastar S, Ebrahimpour K, Hashemi M, et al. 2018. Association of urinary concentrations of four chlorophenol pesticides with cardiometabolic risk factors and obesity in children and adolescents. *Environ Sci Pollut Res Int* 25(5):4516-4523. <http://doi.org/10.1007/s11356-017-0771-y>.
- Pascal-Lorber S, Despoux S, Jamin EL, et al. 2012. Metabolic fate of 2,4-dichlorophenol and related plant residues in rats. *J Agric Food Chem* 60(7):1728-1736. <http://doi.org/10.1021/jf203666k>.
- Patel N, Shahane S, Bhunia B, et al. 2021. Biodegradation of 4-chlorophenol in batch and continuous packed bed reactor by isolated *Bacillus subtilis*. *J Environ Manage* 301:113851. <http://doi.org/10.1016/j.jenvman.2021.113851>.
- Pekari K, Boudene C, Aitio A. 1986. Kinetics of 2,4,6-trichlorophenol in different organs of the rat. *Arch Toxicol* 59:41-44.
- Pekari K, Luotamo M, Jaervisalo J, et al. 1991. Urinary excretion of chlorinated phenols in saw-mill workers. *Int Arch Occup Environ Health* 63(1):57-62.

8. REFERENCES

- Persson PE. 1984. Uptake and release of environmentally occurring odorous compounds by fish a review. *Water Res* 18(10):1263-1272.
- Pesqué D, March-Rodriguez Á, Dahlin J, et al. 2021. Bikini textile contact dermatitis: A Sherlockian approach revealing 2,4-dichlorophenol as a potential textile contact allergen. *Contact Dermatitis* <http://doi.org/10.1111/cod.13946>.
- Peuravuori J, Paaso N, Pihlaja K. 2002. Sorption behaviour of some chlorophenols in lake aquatic humic matter. *Talanta* 56(3):523-538.
- Philippat C, Mortamais M, Chevrier C, et al. 2012. Exposure to phthalates and phenols during pregnancy and offspring size at birth. *Environ Health Perspect* 120(3):464-470. <http://doi.org/10.1289/ehp.1103634>.
- Philippat C, Wolff MS, Calafat AM, et al. 2013. Prenatal exposure to environmental phenols: Concentrations in amniotic fluid and variability in urinary concentrations during pregnancy. *Environ Health Perspect* 121(10):1225-1231. <http://doi.org/10.1289/ehp.1206335>.
- Phornchirasilp S, DeSouza JJ, Feller DR. 1989a. In vivo and in vitro studies of the hepatotoxic effects of 4-chlorophenol in mice. *Biochem Pharmacol* 38(6):961-972.
- Phornchirasilp S, Pate ST, Hanson JM, et al. 1989b. Pharmacologic effects of 4-chlorophenol in rats: Comparison to clofibrate. *Proc Soc Exp Biol Med* 191(2):139-146.
- Piwoni MD, Wilson JT, Walters DM, et al. 1986. Behavior of organic pollutants during rapid-infiltration of wastewater into soil. I. Processes, definition, and characterization using a microcosm. *Haz Waste Haz Mater* 3:43-55.
- Plumb RH. 1991. The occurrence of Appendix IX organic constituents in disposal site ground water. *Ground Water Monit Remed* 11(2):157-164.
- Pollack AZ, Mumford SL, Krall JR, et al. 2018. Exposure to bisphenol A, chlorophenols, benzophenones, and parabens in relation to reproductive hormones in healthy women: A chemical mixture approach. *Environ Int* 120:137-144. <http://doi.org/10.1016/j.envint.2018.07.028>.
- Pollack AZ, Mumford SL, Krall JR, et al. 2020. Urinary levels of environmental phenols and parabens and antioxidant enzyme activity in the blood of women. *Environ Res* 186:109507. <http://doi.org/10.1016/j.envres.2020.109507>.
- Probst GS, McMahan RE, Hill LE, et al. 1981. Chemically-induced unscheduled DNA synthesis in primary rat hepatocyte cultures: A comparison with bacterial mutagenicity using 218 compounds. *Environ Mutagen* 3:11-32.
- Rapson WH, Nazar MA, Bulsky VV. 1980. Mutagenicity produced by aqueous chlorination of organic compounds. *Bull Environ Contam Toxicol* 24:590-596.
- Rasanen L, Hattula ML, Arstila AU. 1977. Mutagenicity of MCPA and its soil metabolites, chlorinated phenols, catechols and some widely used slimicides in Finland. *Bull Environ Contam Toxicol* 18:565-571.
- Ravanel P, Taillandier G, Tissut M. 1989. Uncoupling properties of a chlorophenol series on Acer cell suspensions: A QSAR study. *Ecotoxicol Environ Saf* 18(3):337-345.
- Ravanel P, Taillandier G, Tissut M, et al. 1985. Effect of chlorophenols on isolated plant mitochondria activities: A QSAR study. *Ecotoxicol Environ Saf* 9(3):300-320.
- Renner G, Mucke W. 1986. Transformations of pentachlorophenol. Part I: Metabolism in animals and man. *Toxicol Environ Chem* 11(1):9-29.
- RePORTER. 2021. Chlorophenols. National Institutes of Health, Research Portfolio Online Reporting Tools. <http://projectreporter.nih.gov/reporter.cfm>. January 17, 2022.
- Rhone-Poulenc. 1978. Initial submission: Skin corrosion test of para-chlorophenol in rabbits with cover letter dated 060592. Rhodia, Inc. Rhone-Poulenc, Inc. Submitted to the U.S. Environmental Protection Agency under TSCA Section 8E. OTS0537521. 88920003565. 8EHQ-0692-4919.
- Rhone-Poulenc. 1981. Initial submission: Skin corrosion test of o-chlorophenol in rabbits with cover letter dated 061992. Bioassay System Corporation. Rhone-Poulenc, Inc. Submitted to the U.S. Environmental Protection Agency under TSCA Section 8E. OTS0542021. 88920003775. 8EHQ-0692-5219.

8. REFERENCES

- Rhone-Poulenc. 1991. Initial submission: 4-hour, acute inhalation toxicity study with ortho chlorophenol (C1648) in rats (final report) with attachments and cover letter dated 112791. Research and Consulting Company AG. Rhone-Poulenc, Inc. Submitted to the U.S. Environmental Protection Agency under TSCA Section 8E. OTS0534816. 88920000364. 8EHQ-1291-1719.
- Ribeiro DA, Marques ME, Salvadori DM. 2004. Lack of genotoxicity of formocresol, paramonochlorophenol, and calcium hydroxide on mammalian cells by comet assay. *J Endod* 30(8):593-596.
- Ribeiro DA, Scolastici C, De Lima PL, et al. 2005. Genotoxicity of antimicrobial endodontic compounds by single cell gel (comet) assay in Chinese hamster ovary (CHO) cells. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 99(5):637-640. <http://doi.org/10.1016/j.tripleo.2004.07.010>.
- Richardson DB, Terschuren C, Hoffmann W. 2008. Occupational risk factors for non-Hodgkin's lymphoma: A population-based case-control study in Northern Germany. *Am J Ind Med* 51(4):258-268. <http://doi.org/10.1002/ajim.20552>.
- Roberts MS, Anderson RA, Swarbrick J. 1977. Permeability of human epidermis to phenolic compounds. *J Pharm Pharmacol* 29:677-683.
- Rocha BA, Asimakopoulos AG, Honda M, et al. 2018. Advanced data mining approaches in the assessment of urinary concentrations of bisphenols, chlorophenols, parabens and benzophenones in Brazilian children and their association to DNA damage. *Environ Int* 116:269-277. <http://doi.org/10.1016/j.envint.2018.04.023>.
- Rodwell DE, Wilson RD, Nemecek MD, et al. 1989. Teratogenic assessment of 2,4-dichlorophenol in Fischer 344 rats. *Fundam Appl Toxicol* 13:635-640.
- Rooney MR, Lutsey PL, Bhatti P, et al. 2018. Urinary 2,5-dichlorophenol and 2,4-dichlorophenol concentrations and prevalent disease among adults in the National Health and Nutrition Examination Survey (NHANES). *Occup Environ Med* <http://doi.org/10.1136/oemed-2018-105278>.
- Ruth JH. 1986. Odor thresholds and irritation levels of several chemical substances: A review. *Am Ind Hyg Assoc J* 47(3):A142-151. <http://doi.org/10.1080/15298668691389595>.
- Sakagami Y, Yamazaki H, Ogasawara N, et al. 1988. The evaluation of genotoxic activities of disinfectants and their metabolites by umu test. *Mutat Res* 209(3-4):155-160.
- Saracci R, Kogevinas M, Bertazzi PA, et al. 1991. Cancer mortality in workers exposed to chlorophenoxy herbicides and chlorophenols. *Lancet* 338(8774):1027-1032.
- Schellenberg K, Leuenberger C, Schwarzenbach RP. 1984. Sorption of chlorinated phenols by natural sediments and aquifer materials. *Environ Sci Technol* 18(9):652-657.
- Schmied-Tobies MIH, Murawski A, Schmidt L, et al. 2021. Pentachlorophenol and nine other chlorophenols in urine of children and adolescents in Germany - Human biomonitoring results of the German Environmental Survey 2014-2017 (GerES V). *Environ Res* 196:110958. <http://doi.org/10.1016/j.envres.2021.110958>.
- Schummer C, Sadiki M, Mirabel P, et al. 2006. Analysis of t-butyldimethylsilyl derivatives of chlorophenols in the atmosphere of urban and rural areas in east of France. *Chromatographia* 63(3-4):189-195. <http://doi.org/10.1365/s10337-006-0721-1>.
- Schwarzenbach RP, Westall J. 1985. Sorption of hydrophobic trace organic compounds in groundwater systems. *Water Sci Technol* 17(9):39-56.
- Schwetz BA, Keeler PA, Gehring PJ. 1974. Effects of purified and commercial grade tetrachlorophenol on rat embryonal and fetal development. *Toxicol Appl Pharmacol* 28(1):146-150.
- Scully FE, Hoigne J. 1987. Rate constants for reactions of singlet oxygen with phenols and other compounds in water. *Chemosphere* 16:681-694.
- Seidler A, Raum E, Arabin B, et al. 1999. Maternal occupational exposure to chemical substances and the risk of infants small-for-gestational-age. *Am J Ind Med* 36(1):213-222.
- Seuferer SL, Braymer HD, Dunn JJ. 1979. Metabolism of diflubenzuron by soil microorganisms and mutagenicity of the metabolites. *Pestic Biochem Physiol* 10:174-180.
- Seyler DE, East JM, Condie LW, et al. 1984. The use of in vitro methods for assessing reproductive toxicity. Dichlorophenols. *Toxicol Lett* 20(3):309-315.

8. REFERENCES

- Shafik TM, Sullivan HC, Enos HR. 1973. Multiresidue procedure for halo- and nitrophenols: Measurement of exposure to biodegradable pesticides yielding these compounds as metabolites. *J Agric Food Chem* 21:295-298.
- Shang-Zhis SG. 1983. High-performance liquid chromatographic analysis of chlorophenols in cardboard food containers and related materials. *J Chromatogr* 267(1):183-189.
- Shannon RD, Boardman GD, Dietrich AM, et al. 1991. Mitochondrial response to chlorophenols as a short-term toxicity assay. *Environ Toxicol Chem* 10(1):57-66.
- Shehata M, Durner J, Thiessen D, et al. 2012. Induction of DNA double-strand breaks by monochlorophenol isomers and ChKM in human gingival fibroblasts. *Arch Toxicol* 86(9):1423-1429. <http://doi.org/10.1007/s00204-012-0861-z>.
- Shen SY, Villeneuve DC, Chu I, et al. 1983. Acute dermal toxicity of tetrachlorophenols in the rat. *Bull Environ Contam Toxicol* 31(6):680-685.
- Shi J, Feng M, Zhang X, et al. 2013. Acute oral toxicity and liver oxidant/antioxidant stress of halogenated benzene, phenol, and diphenyl ether in mice: A comparative and mechanism exploration. *Environ Sci Pollut Res Int* 20(9):6138-6149. <http://doi.org/10.1007/s11356-013-1622-0>.
- Shiu WY, Ma KC, Varhanickova D, et al. 1994. Chlorophenols and alkylphenols: A review and correlation of environmentally relevant properties and fate in an evaluative environment. *Chemosphere* 29(6):1155-1224.
- Shiue I. 2014. Higher urinary heavy metal, phthalate, and arsenic but not parabens concentrations in people with high blood pressure, U.S. NHANES, 2011-2012. *Int J Environ Res Public Health* 11(6):5989-5999. <http://doi.org/10.3390/ijerph110605989>.
- Shiue I, Hristova K. 2014. Higher urinary heavy metal, phthalate and arsenic concentrations accounted for 3-19% of the population attributable risk for high blood pressure: US NHANES, 2009-2012. *Hypertens Res* 37(12):1075-1081. <http://doi.org/10.1038/hr.2014.121>.
- Simmon VF, Kauhanen K, Tardiff RG. 1977. Mutagenic activity of chemicals identified in drinking water. *Dev Toxicol Environ Sci* 2:249-258.
- Sithole BB, Williams DT. 1986. Halogenated phenols in water at forty canadian potable water treatment facilities. *J Assoc Off Anal Chem* 69(5):807-810.
- Sittig M. 1985. Chlorophenols. In: *Handbook of toxic and hazardous chemicals and carcinogens*. 2nd ed. Park Ridge, NJ: Noyes Data Corp., 889.
- Smith AE. 1985. Identification of 2,4-dichloroanisole and 2,4-dichlorophenol as soil degradation products of ring-labelled [¹⁴C]2,4-D. *Bull Environ Contam Toxicol* 34:150-157.
- Sofuni T, Matsuoka A, Sawada M, et al. 1990. A comparison of chromosome aberration induction by 25 compounds tested by two Chinese hamster cell (CHL and CHO) systems in culture. *Mutat Res* 241(2):175-214.
- Solomon K, Bergman H, Huggett R. 1994. A review and assessment of the ecological risks associated with the use of chlorine dioxide for the bleaching of pulp. Pulp bleaching 1994 international conference. Canadian Pulp & Paper Association. 145-161.
- Somani SM, Khalique A. 1982. Distribution and metabolism of 2,4-dichlorophenol in rats. *J Toxicol Environ Health* 9:889-897.
- Somani SM, Smart T, Khalique A. 1984. Metabolism of 2,4-dichlorophenol by isolated perfused rat liver. *J Toxicol Environ Health* 13:787-798.
- Spencer B, Williams RT. 1950. The metabolism of halogenobenzenes: A comparison of the glucuronic acid, ethereal sulphate and mercapturic acid conjugations of chloro-, bromo-, and iodo-benzenes and of the o-, m-, and p-chlorophenols: Biosynthesis of o-, m-, and p-chlorophenylglucuronides. *Biochem J* 47:279-284.
- Staples CA, Werner A, Hoogheem T. 1985. Assessment of priority pollutant concentrations in the United States using STORET database. *Environ Toxicol Chem* 4:131-142.
- Steiert JG, Crawford RL. 1985. Microbial degradation of chlorinated phenols. *Trends Biotechnol* 3(12):1986).

8. REFERENCES

- Steiert JG, Pignatello JJ, Crawford RL. 1987. Degradation of chlorinated phenols by a pentachlorophenol-degrading bacterium. *Appl Environ Microbiol* 53:907-910.
- Stockdale M, Selwyn MJ. 1971. Effects of ring substituents on the activity of phenols as inhibitors and uncouplers of mitochondrial respiration. *Eur J Biochem* 21(4):565-574.
- Stoner GD, Conran PB, Greisiger EA, et al. 1986. Comparison of two routes of chemical administration on the lung adenoma response in strain A/J mice. *Toxicol Appl Pharmacol* 82:19-31.
- Strobel K, Grummt T. 1987. Aliphatic and aromatic halocarbons as potential mutagens in drinking water. Part II. Chlorinated phenols. *Toxicol Environ Chem* 14:143-156.
- Stryer L. 1988. Oxidative phosphorylation. In: *Biochemistry*. 3rd ed. New York, NY: Freeman and Co., 397-426.
- Sugiura K, Aoki M, Kaneki S, et al. 1984. Fate of 2,4,6-trichlorophenol, pentachlorophenol, p-chlorobiphenyl, and hexachlorobenzene in an outdoor experimental pond: Comparison between observations and predictions based on laboratory data. *Arch Environ Contam Toxicol* 13:745-758.
- Sutton PA, Barker JF. 1985. Migration and attenuation of selected organics in a sandy aquifer - A natural gradient experiment. *Ground Water* 23:10-16.
- Tabak HH, Quave SA, Mashni CI, et al. 1981. Biodegradability studies with organic priority pollutant compounds. *J Water Pollut Contr Fed* 53:1503-1518.
- Tegethoff K, Herbold BA, Bomhard EM. 2000. Investigations on the mutagenicity of 1,4-dichlorobenzene and its main metabolite 2,5-dichlorophenol in vivo and in vitro. *Mutat Res* 470(2):161-167.
- Themel K, Sparling R, Oleszkiewicz J. 1996. Anaerobic dehalogenation of 2-chlorophenol by mixed bacterial cultures in absence methanogenesis. *Environ Technol* 17:869-875.
- Tratnyek PG, Hoigne J. 1991. Oxidation of substituted phenols in the environment: A QSAR analysis of rate constants for reaction with singlet oxygen. *Environ Sci Technol* 25:1596-1604.
- TRI20. 2021. TRI explorer: Providing access to EPA's toxics release inventory data. Washington, DC: Toxics Release Inventory. U.S. Environmental Protection Agency. <http://www.epa.gov/triexplorer/>. November 8, 2021.
- Truffin D, Garcon G, Hanothiaux MH, et al. 2003. Involvement of oxidative stress in the toxicity of 4-monochlorophenol in Hep G2 cells in culture. *J Appl Toxicol* 23(2):109-114. <http://doi.org/10.1002/jat.895>.
- Twum C, Wei Y. 2011. The association between urinary concentrations of dichlorophenol pesticides and obesity in children. *Rev Environ Health* 26(3):215-219.
- USGS. 1998a. Water quality in the Western Lake Michigan drainages. Denver, CO: U.S. Geological Survey. Circular 1156. <https://pubs.er.usgs.gov/publication/cir1156>. November 11, 2021.
- USGS. 1998b. Water quality in the Lower Susquehanna River Basin. Denver, CO: U.S. Geological Survey. Circular 1168. <https://pubs.usgs.gov/circ/circ1168/circ1168.pdf>. November 11, 2021.
- Vaishnav DD, Korthals ET. 1988. Comparison of chemical biodegradation rates in BOD dilution and natural waters. *Bull Environ Contam Toxicol* 41:291-298.
- Valencia R, Mason JM, Woodruff RC, et al. 1985. Chemical mutagenesis testing in *Drosophila*. III. Results of 48 coded compounds tested for the National Toxicology Program. *Environ Mutagen* 7:325-348.
- Valo R, Kitunen V, Salkinjoa-Salonen M, et al. 1984. Chlorinated phenols as contaminants of soil and water in the vicinity of two Finnish sawmills. *Chemosphere* 13(8):835-844.
- Veith GD, Macek KJ, Petrocelli SR, et al. 1980. An evaluation of using partition coefficients and water solubility to estimate bioconcentration factors for organic chemicals in fish. In: Eaton JG, Parrish RP, Hendricks AC, eds. *Aquatic toxicology*. West Conshohocken, PA: ASTM International, 116-129. <http://doi.org/10.1520/STP27411S>.
- Viau AC, Studak SM, Karasek FW. 1984. Comparative analysis of hazardous compounds on fly-ash from municipal waste incineration by gas chromatography/mass spectrometry. *Can J Chem* 62:2140-2145.

8. REFERENCES

- Vindenes HK, Svanes C, Lygre SHL, et al. 2021. Exposure to environmental phenols and parabens, and relation to body mass index, eczema and respiratory outcomes in the Norwegian RHINESSA study. *Environ Health* 20(1):81. <http://doi.org/10.1186/s12940-021-00767-2>.
- Vlastos D, Antonopoulou M, Konstantinou I. 2016. Evaluation of toxicity and genotoxicity of 2-chlorophenol on bacteria, fish and human cells. *Sci Total Environ* 551-552:649-655. <http://doi.org/10.1016/j.scitotenv.2016.02.043>.
- Wang YJ, Lin JK. 1995. Estimation of selected phenols in drinking water with in situ acetylation and study on the DNA damaging properties of polychlorinated phenols. *Arch Environ Contam Toxicol* 28(4):537-542.
- Wang N, Wang Y, Zhang H, et al. 2020. Association of bone mineral density with nine urinary personal care and consumer product chemicals and metabolites: A national-representative, population-based study. *Environ Int* 142:105865. <http://doi.org/10.1016/j.envint.2020.105865>.
- Wang Z, Liu Y, Li T, et al. 2021. Wood preservatives in children's wooden toys from China: Distribution, migration, oral exposure, and risk assessment. *Ecotoxicol Environ Saf* 209:111786. <http://doi.org/10.1016/j.ecoenv.2020.111786>.
- Watkins DJ, Ferguson KK, Anzalota Del Toro LV, et al. 2015. Associations between urinary phenol and paraben concentrations and markers of oxidative stress and inflammation among pregnant women in Puerto Rico. *Int J Environ Health Res* 218(2):212-219. <http://doi.org/10.1016/j.ijheh.2014.11.001>.
- Wegman RCC, Van Den Broek HH. 1983. Chlorophenols in river sediment in the Netherlands. *Water Res* 17(2):227-230.
- Wei Y, Zhu J. 2016a. Associations between urinary concentrations of 2,5-dichlorophenol and metabolic syndrome among non-diabetic adults. *Environ Sci Pollut Res Int* 23(1):581-588. <http://doi.org/10.1007/s11356-015-5291-z>.
- Wei Y, Zhu J. 2016b. Urinary concentrations of 2,5-dichlorophenol and diabetes in US adults. *J Expo Sci Environ Epidemiol* 26(3):329-333. <http://doi.org/10.1038/jes.2015.19>.
- Wei Y, Zhu J, Nguyen A. 2014. Urinary concentrations of dichlorophenol pesticides and obesity among adult participants in the U.S. National Health and Nutrition Examination Survey (NHANES) 2005-2008. *Int J Hyg Environ Health* 217(2-3):294-299. <http://doi.org/10.1016/j.ijheh.2013.07.003>.
- Wei D, Dong H, Wu N, et al. 2016. A fluorescence approach to assess the production of soluble microbial products from aerobic granular sludge under the stress of 2,4-dichlorophenol. *Sci Rep* 6:24444. <http://doi.org/10.1038/srep24444>.
- Weinbach EC, Garbus J. 1965. The interaction of uncoupling phenols with mitochondria and with mitochondrial protein. *Biol Chem* 240(4):1811-1819.
- Welch BM, Keil AP, Bommarito PA, et al. 2021. Longitudinal exposure to consumer product chemicals and changes in plasma oxylipins in pregnant women. *Environ Int* 157:106787. <http://doi.org/10.1016/j.envint.2021.106787>.
- WHO. 1989. Chlorophenols other than pentachlorophenol. *Environmental Health Criteria* 93. Geneva, Switzerland: World Health Organization. <http://wedocs.unep.org/handle/20.500.11822/29407>. March 2, 2020.
- WHO. 2010. Guidelines for indoor air quality: Selected pollutants. Geneva, Switzerland: World Health Organization. http://www.euro.who.int/__data/assets/pdf_file/0009/128169/e94535.pdf. April 25, 2012.
- WHO. 2017. Guidelines for drinking-water quality: Fourth edition incorporating the first addendum. Geneva, Switzerland: World Health Organization. <http://apps.who.int/iris/bitstream/10665/254637/1/9789241549950-eng.pdf?ua=1>. February 28, 2017.
- Wieser M, Wagner B, Eberspacher J, et al. 1997. Purification and characterization of 2,4,6-trichlorophenol-4- monooxygenase, a dehalogenating enzyme from *Azotobacter* sp. Strain GP1. *J Bacteriol* 179(1):202-208.
- WIL Research Laboratories. 1982. Acute oral toxicity study in Fischer 344 female rats with 2,4-dichlorophenol. Cincinnati, OH: Wil Research Laboratories, Inc. Project #WIL-22001.

8. REFERENCES

- Williams DT, LeBel GL, Junkins E. 1984. A comparison of organochlorine residues in human adipose tissue autopsy samples from two Ontario municipalities. *J Toxicol Environ Health* 13(1):19-29. <http://doi.org/10.1080/15287398409530478>.
- Wolff MS, Teitelbaum SL, McGovern K, et al. 2015. Environmental phenols and pubertal development in girls. *Environ Int* 84:174-180. <http://doi.org/10.1016/j.envint.2015.08.008>.
- Wolff MS, Pajak A, Pinney SM, et al. 2017. Associations of urinary phthalate and phenol biomarkers with menarche in a multiethnic cohort of young girls. *Reprod Toxicol* 67:56-64. <http://doi.org/10.1016/j.reprotox.2016.11.009>.
- Woods SL, Ferguson JF, Benjamin MM. 1989. Characterization of chlorophenol and chloromethoxybenzene biodegradation during anaerobic treatment. *Environ Sci Technol* 23(1):62-68.
- Wu B, Jiang Y, Jin X, et al. 2020. Using three statistical methods to analyze the association between exposure to 9 compounds and obesity in children and adolescents: NHANES 2005-2010. *Environ Health* 19(1):94. <http://doi.org/10.1186/s12940-020-00642-6>.
- Xiao F, Zhang X, Zhai H, et al. 2012. New halogenated disinfection byproducts in swimming pool water and their permeability across skin. *Environ Sci Technol* 46(13):7112-7119. <http://doi.org/10.1021/es3010656>.
- Xie Y, Jiang L, Qiu J, et al. 2019. A comparative evaluation of the immunotoxicity and immunomodulatory effects on macrophages exposed to aromatic trihalogenated DBPs. *Immunopharmacol Immunotoxicol* 41(2):319-326. <http://doi.org/10.1080/08923973.2019.1608444>.
- Xu X, Nembhard WN, Kan H, et al. 2011. Urinary trichlorophenol levels and increased risk of attention deficit hyperactivity disorder among US school-aged children. *Occup Environ Med* 68(8):557-561. <http://doi.org/10.1136/oem.2010.063859>.
- Yamaguchi F, Tsutsui T. 2003. Cell-transforming activity of fourteen chemical agents used in dental practice in Syrian hamster embryo cells. *J Pharmacol Sci* 93(4):497-500.
- Yang X, Ou W, Zhao S, et al. 2021. Human transthyretin binding affinity of halogenated thiophenols and halogenated phenols: An in vitro and in silico study. *Chemosphere* 280:130627. <http://doi.org/10.1016/j.chemosphere.2021.130627>.
- Ye X, Kuklennyk Z, Needham LL, et al. 2006. Measuring environmental phenols and chlorinated organic chemicals in breast milk using automated on-line column-switching-high performance liquid chromatography-isotope dilution tandem mass spectrometry. *J Chromatogr B Analyt Technol Biomed Life Sci* 831(1-2):110-115. <http://doi.org/10.1016/j.jchromb.2005.11.050>.
- Yoshida M, Sunaga M, Hara I. 1986. Urinary metabolite levels in workers exposed to chlorobenzene. *Ind Health* 24(4):255-258.
- Yoshida T, Andoh K, Fukuhara M. 2002. Urinary 2,5-dichlorophenol as biological index for p-dichlorobenzene exposure in the general population. *Arch Environ Contam Toxicol* 43(4):481-485. <http://doi.org/10.1007/s00244-002-1228-x>.
- Yu C, Wang C, Lu Z, et al. 2019. The endocrine-disrupting potential of four chlorophenols by in vitro and in silico assay. *Chemosphere* 218:941-947. <http://doi.org/10.1016/j.chemosphere.2018.11.199>.
- Zeiger E. 1990. Mutagenicity of 42 chemicals in Salmonella. *Environ Mol Mutagen* 16 (suppl 18):32-54. <http://doi.org/10.1002/em.2850160504>.
- Zeiger E, Anderson B, Haworth S, et al. 1988. Salmonella mutagenicity tests. IV. Results from the testing of 300 chemicals. *Environ Mol Mutagen* 11(suppl 12):1-158.
- Zeiger E, Anderson B, Haworth S, et al. 1992. Salmonella mutagenicity tests: V. Results from the testing of 311 chemicals. *Environ Mol Mutagen* 21:2-141.
- Zendehdel R, Tayefeh-Rahimian R, Kabir A. 2014. Chronic exposure to chlorophenol related compounds in the pesticide production workplace and lung cancer: a meta-analysis. *Asian Pac J Cancer Prev* 15(13):5149-5153.
- Zhang Y, Yang DJ, Fang CR. 1997. Monitoring of organochlorine pesticide residues--the GEMS/food program in China. *Biomed Environ Sci* 10(1):102-106.

8. REFERENCES

- Zhu Y, Xu G, Wang X, et al. 2021. Passive sampling of chlorophenols in water and soils using diffusive gradients in thin films based on β -cyclodextrin polymers. *Sci Total Environ*:150739. <http://doi.org/10.1016/j.scitotenv.2021.150739>.