

9. REFERENCES

- Abdel-Rahman MS, Couri D, Bull RJ. 1982. Metabolism and pharmacokinetics of alternate drinking water disinfectants. *Environ Health Perspect* 46:19-23.
- Abdel-Rahman MS, Sub DH, Bull RJ. 1984. Pharmacodynamics and toxicity of chlorine in drinking water in the rat. *J Appl Toxicol* 4(2):82-86.
- Abdel-Rahman MS, Waldron DM, Bull RJ. 1983. A comparative kinetics study of monochloramine and hypochlorous acid in the rat. *J Appl Toxicol* 3:175-179.
- ACGIH. 2006. Chlorine. Threshold limit values for chemical substances and physical agents and biological exposure indices. Cincinnati, OH: American Conference of Governmental Industrial Hygienists.
- Adelson L, Kaufman J. 1971. Fatal chlorine poisoning: Report of two cases with clinicopathologic correlation. *Am J Clin Pathol* 56(4):430-442.
- Adinolfi M. 1985. The development of the human blood-CSF-brain barrier. *Dev Med Child Neurol* 27(4):532-537.
- Adlercreutz H. 1995. Phytoestrogens: Epidemiology and a possible role in cancer protection. *Environ Health Perspect Suppl* 103(7):103-112.
- Agabiti N, Ancona C, Forastiere F, et al. 2001. Short term respiratory effects of acute exposure to chlorine due to a swimming pool accident. *Occup Environ Med* 58(6):399-404.
- Agency for Toxic Substances and Disease Registry. 1989. Decision guide for identifying substance-specific data needs related to toxicological profiles; Notice. Agency for Toxic Substances and Disease Registry, Division of Toxicology. *Fed Regist* 54(174):37618-37634.
- 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. 1998. Alberton chlorine spill; Alberton, Montana. Phase 1 study report. Atlanta, GA: Agency for Toxic Substances and Disease Registry. PB99115883.
- Agency for Toxic Substances and Disease Registry. 2005. Notice of the revised priority list of hazardous substances that will be the subject of toxicological profiles. *Fed Regist* 70:72840-72842.
- AIHA. 2004. Chlorine. Emergency Response Planning Guidelines (ERPG). Fairfax, VA: American Industrial Hygiene Association.
- Alarie Y. 1973. Sensory irritation by airborne chemicals. *CRC Crit Rev Toxicol* 2:299-363.

* Not cited in text

9. REFERENCES

- Alarie Y. 1981. Toxicological evaluation of airborne chemical irritants and allergens using respiratory reflex reactions. In: Leong BKJ, ed. Proceedings of the inhalation toxicology and technology symposium. Ann Arbor, MI: Ann Arbor Science Publishers, Inc., 207-231.
- Almagro Nieves D, Acuria Castillo R, Hernandez Jerez A, et al. 2008. [Investigation of an outbreak of acute respiratory illness due to exposure to chlorine gas in a public swimming pool.] *Gig Sanit* 22(3):287-290. (Spanish)
- Altman PL, Dittmer DS. 1974. Biological handbooks: Biology data book. Vol. III. 2nd ed. Bethesda, MD: Federation of American Societies for Experimental Biology, 1987-2008, 2041.
- 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(6):272-290.
- 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: Refinement, reduction, replacement. New York, NY: Marcel Dekker, Inc., 9-25.
- Andersen ME, Clewell HJ, Gargas ML, et al. 1987. Physiologically based pharmacokinetics and the risk assessment process for methylene chloride. *Toxicol Appl Pharmacol* 87(2):185-205.
- Anglen DA. 1981. Sensory response of human subjects to chlorine in air. Ann Arbor, MI: University of Michigan.
- APHA. 1998a. Method 4500-Cl. Chlorine (residual). Standard methods for the examination of waste and wastewater. 20th ed. Washington, DC: American Public Health Association, 4-53 to 4-66.
- APHA. 1998b. Method 4500 Cl-. Chloride. Standard methods for the examination of waste and wastewater. 20th ed. Washington, DC: American Public Health Association, 4-66 to 4-73.
- Babl FE, Kharsch S, Woolf A. 1998. Airway edema following household bleach ingestion. *Am J Emerg Med* 16:514-516.
- Babu RV, Cardenas V, Sharma G. 2008. Acute respiratory distress syndrome from chlorine inhalation during a swimming pool accident: A case report and review of the literature. *J Intensive Care Med* 23(4):275-280.
- Barbone F, Delzell E, Austin H, et al. 1992. A case-control study of lung cancer at a dye and resin manufacturing plant. *Am J Ind Med* 22(6):835-849.
- Barnes DG, Dourson M. 1988. Reference dose (RfD): Description and use in health risk assessments. *Regul Toxicol Pharmacol* 8(4):471-486.
- Barregård L, Sallsten G, Jarvholm B. 1990. Mortality and cancer incidence in chloralkali workers exposed to inorganic mercury. *Br J Ind Med* 47(2):99-104.
- Barrow CS, Steinhagen WH. 1982. Sensory irritation tolerance development to chlorine in F-344 rats following repeated inhalation. *Toxicol Appl Pharmacol* 65(3):383-389.

9. REFERENCES

- Barrow CS, Alarie Y, Warrick JC, et al. 1977. Comparison of the sensory irritation response in mice to chlorine and hydrogen chloride. *Arch Environ Health* 32(2):68-76.
- Barrow CS, Kociba RJ, Rampy LW, et al. 1979. An inhalation toxicity study of chlorine in Fisher-344 rats following 30 days of exposure. *Toxicol Appl Pharmacol* 49:77-88.
- Barrow RE, Smith RG. 1975. Chlorine-induced pulmonary function changes in rabbits. *Am Ind Hyg Assoc J* 36(5):398-403.
- Baxter PJ, Davies PC, Murray V. 1989. Medical planning for toxic releases into the community: The example of chlorine gas. (Comment in: *Br J Ind Med* 46(10):752). *Br J Ind Med* 46(4):277-285.
- Beach FX, Jones ES, Scarrow GD. 1969. Respiratory effects of chlorine gas. *Br J Ind Med* 26(3):231-236.
- Becker M, Forrester M. 2008. Pattern of chlorine gas exposures reported to Texas poison control centers, 2000 through 2005. *Tex Med* 104(3):52-57.
- Berger GS, ed. 1994. Epidemiology of endometriosis. In: *Endometriosis: Advanced management and surgical techniques*. New York, NY: Springer-Verlag, 3-7.
- Berghoff RS. 1919. The more common gases; their effect on the respiratory tract. *Arch Intern Med* 24:678-684.
- BG Chemie. 1991. Sodium hypochlorite. Toxicological evaluations. 4. Berlin: Springer. Berufgenossenschaft der Chemischen Industrie, 257-299.
- Bhérier L, Cushman R, Courteau JP, et al. 1994. Survey of construction workers repeatedly exposed to chlorine over a three to six month period in a pulp mill: II. Follow-up of affected workers by questionnaire, spirometry, and assessment of bronchial responsiveness 18 to 24 months after exposure ended. *Occup Environ Med* 51(4):225-228.
- Bommaraju TV, Luke B, O'Brien TF, et al. 2004. Chlorine. In: *Kirk-Othmer encyclopedia of chemical technology*. Volume 6. John Wiley & Sons, Inc. <http://www.mrw.interscience.wiley.com/emrw/9780471238966/kirk/article/chlocurl.a01/current/pdf>. March 29, 2007.
- Bond GG, Cook RR, Wight PC, et al. 1983. A case-control study of brain tumor mortality at a Texas chemical plant. *J Occup Med* 25:377-386.
- Bond GG, Flores GH, Shellenberger RJ, et al. 1986. Nested case-control study of lung cancer among chemical workers. *Am J Epidemiol* 124(1):53-66.
- Bond GG, Shellenberger RJ, Flores GH, et al. 1985. A case-control study of renal cancer mortality at a Texas chemical plant. *Am J Ind Med* 7:123-139.
- Bonetto G, Corradi M, Carraro S, et al. 2006. Longitudinal monitoring of lung injury in children after acute chlorine exposure in a swimming pool. *Am J Respir Crit Care Med* 174(5):545-549.
- Bosse GM. 1994. Nebulized sodium bicarbonate in the treatment of chlorine gas inhalation. *J Toxicol Clin Toxicol* 32(3):233-241.

9. REFERENCES

- Bracco D, Dubois MJ, Bouali R. 2005. Intoxication by bleach ingestion. *Can J Anaesth* 52(1):118-119.
- Brooks SM, Weiss MA, Bernstein IL. 1985. Reactive airways dysfunction syndrome. Case reports of persistent airways hyperactivity following high-level irritant exposures. *J Occup Med* 27(7):473-476.
- Buckley LA, Jiang XZ, James RA, et al. 1984. Respiratory tract lesions induced by sensory irritants at the RD₅₀ concentration. *Toxicol Appl Pharmacol* 74:417-429.
- California Environmental Protection Agency. 2002. Chlorine emissions from activated sea-salt aerosols and their potential impact on ozone. Sacramento, CA: California Environmental Protection Agency. PB2003100841. <http://www.arb.ca.gov/research/apr/past/00324.pdf>. May 17, 2007.
- Carlton BD, Bartlett P, Basaran A, et al. 1986. Reproductive effects of alternative disinfectants. *Environ Health Perspect* 69:237-241.
- CAS. 1978a. Method #: 330.1. Chlorine, total residual (titrimetric, amperometric) Columbia Analytical Services. <http://www.caslab.com/EPA-Methods/PDF/EPA-Method-3301.pdf>. May 27, 2010.
- CAS. 1978b. Method #: 330.2. Chlorine, total residual (titrimetric, back, iodometric (starch or amperometric) Columbia Analytical Services. <http://www.caslab.com/EPA-Methods/PDF/EPA-Method-3302.pdf>. May 27, 2010.
- CAS. 1978c. Method #: 330.3. Chlorine, total residual (titrimetric, iodometric) Columbia Analytical Services. <http://www.caslab.com/EPA-Methods/PDF/EPA-Method-3303.pdf>. May 27, 2010.
- CDC. 1991. Chlorine gas toxicity from mixture of bleach with other cleaning products — California (Erratum in: *MMWR Morb Mortal Wkly Rep* 40(47):819). *MMWR Morb Mortal Wkly Rep* 40(36):619-629.
- CDC. 2005. Public health consequences from hazardous substances acutely released during rail transit—South Carolina, 2005; selected states, 1999-2004. *MMWR Morb Mortal Wkly Rep* 54(3):64-67.
- CDC. 2009. CDC Healthy swimming. <http://cdc.gov/healthyswimming>. February 27, 2009.
- Chang CT, Liu TH, Jeng FT. 2004. Atmospheric concentrations of the Cl atom, ClO radical, and HO radical in the coastal marine boundary layer. *Environ Res* 94(1):67-74.
- Chang JCF, Barrow CS. 1984. Sensory irritation tolerance and cross-tolerance in F-344 rats exposed to chlorine or formaldehyde gas. *Toxicol Appl Pharmacol* 76(2):319-327.
- *Chang JH, Vogt CR, Sun AY. 1981. Effects of acute administration of chlorinated water on liver lipids. *Lipids* 16(5):336-340.
- Chasis H, Zapp JA, Bannon JH, et al. 1947. Chlorine accident in Brooklyn. *Occup Med (Lond)* 4:152-170.
- Chester EH, Gillespie DG, Krause FD. 1969. The prevalence of chronic obstructive pulmonary disease in chlorine gas workers. *Am Rev Respir Dis* 99:365-373.

9. REFERENCES

- Chester EH, Kaimal J, Payne CB, et al. 1977. Pulmonary injury following exposure to chlorine gas. Possible beneficial effects of steroid treatment. *Chest* 72(2):247-250.
- Clewell HJ, Andersen ME. 1985. Risk assessment extrapolations and physiological modeling. *Toxicol Ind Health* 1(4):111-131.
- CMR. 1977. Chemical profile: Chlorine. *Chem Market Rep.* June 27, 1977.
- CMR. 1980. Chemical profile: Chlorine. *Chem Market Rep.* April 14, 1980.
- CMR. 1989. Chemical profile: Chlorine. *Chem Market Rep.* June 12, 1989.
- CMR. 1992. Chemical profile: Chlorine. *Chem Market Rep.* June 01, 1992.
- CMR. 1995. Chemical profile: Chemical. *Chem Market Rep.* June 12, 1995.
- CMR. 2000. Chemical profile: Chlorine. *Chem Market Rep.* September 04, 2000.
- CMR. 2003. Chemical profile: Chlorine. *Chem Market Rep.* June 16, 2003.
- CMR. 2006. Chemical profile: Chlorine. *Chem Market Rep.* May 21, 2006.
- Compton JAF. 1987. Chlorine. In: *Military chemical and biological agents. Chemical and toxicological properties.* Caldwell, NJ: Telford Press, 113-118.
- Costero C, Falcón Escobedo R. 1983. [Gas pneumopathy. Chlorine poisoning and the participation of oxygen in the pathological changes.] *Salud Publica Mex* 25(3):265-272. (Spanish)
- Cotton FA, Wilkinson G, Murillo CA, et al., eds. 1999. *Advanced inorganic chemistry.* New York, NY: John Wiley & Sons, Inc., 550, 564, 565.
- Courteau JP, Cushman R, Bouchard F, et al. 1994. Survey of construction workers repeatedly exposed to chlorine over a three to six month period in a pulp mill. I. Exposure and symptomatology. *Occup Environ Med* 51(4):219-224.
- Cunningham HM. 1980. Effect of sodium hypochlorite on the growth of rats and guinea pigs. *Am J Vet Res* 41(2):295-297.
- Curlin LC, Bommaraju TV, Hansson CB. 1991. Alkali and chlorine products. In: *Kroschwitz JI, Howe-Grant M, eds. Kirk-Othmer encyclopedia of chemical technology. Vol. 1.* New York, NY: John Wiley & Sons, Inc., 938-1025.
- D'Alessandro A, Kuschner W, Wong H, et al. 1996. Exaggerated responses to chlorine inhalation among persons with nonspecific airway hyperreactivity. *Chest* 109(2):331-337.
- Daniel FB, Condie LW, Robinson M, et al. 1990. Comparative subchronic toxicity studies of three disinfectants. *J Am Water Works Assoc* 82:61-69.
- Daniel FB, Ringhand HP, Robinson M, et al. 1991. Comparative subchronic toxicity of chlorine and monochloramine in the B6C3F1 mouse. *J Am Water Works Assoc* 83(11):68-75.

9. REFERENCES

- Das TK. 2002. Disinfection. In: Kirk-Othmer encyclopedia of chemical toxicology. Vol. 8. New York, NY: John Wiley & Sons, Inc., 605-672.
<http://www.mrw.interscience.wiley.com/emrw/9780471238966/kirk/article/disibloc.a01/current/pdf>.
March 28, 2007.
- Decker WJ, Koch HF. 1978. Chlorine poisoning at the swimming pool. An overlooked hazard. *Clin Toxicol* 13(3):377-381.
- Demnati R, Fraser R, Plaa G, et al. 1995. Histopathological effects of acute exposure to chlorine gas on Sprague-Dawley rat lungs. *J Environ Pathol Toxicol Oncol* 14(1):15-19.
- Deutsch ZG. 1947. Alkali and chlorine industries. In: Kirk RE, Othmer DF, eds. *Encyclopedia of chemical technology*. Vol. 1. New York, NY: The Interscience Encyclopedia, Inc., 358-430.
- Deutsch ZG. 1963. Alkali and chlorine industries. In: Standen A, ed. *Kirk-Othmer encyclopedia of chemical technology*. Vol. 1. New York, NY: Interscience Publishers, 668-758.
- DOA. 1933. Chlorine. The residual effects of warfare gases. Washington, DC: U.S. Department of Army, 1-41.
- Dodd DE, Bus JS, Barrow CS. 1980. Lung sulfhydryl changes in rats following chlorine inhalation. *Toxicol Appl Pharmacol* 52(2):199-208.
- DOE. 2005a. Detailed numerical simulation of the Graniteville train collision. U.S. Department of Energy. WSRC-MS-2005-00635.
- DOE. 2005b. The Savannah River National Laboratory's response to the Graniteville, SC train accident. Washington, DC: U.S. Department of Energy. WSRC-MS-2005-00612. DE2006881477.
- Donnelly SC, FitzGerald MX. 1990. Reactive airways dysfunction syndrome (RADS) due to chlorine gas exposure. *Isr J Med Sci* 159(9-12):276-277.
- Doudidar SM. 1997. Nebulized sodium bicarbonate in acute chlorine inhalation. *Pediatr Emerg Care* 13(6):406-407.
- Edstrom Industries. 2003. Forms of chlorine in water. Edstrom Industries, Inc.
<http://www.edstrom.com/DocLib/MI4148.pdf>. May 27, 2010.
- Eiserich JP, Cross CE, Jones AD, et al. 1996. Formation of nitrating and chlorinating species by reaction of nitrite with hypochlorous acid. A novel mechanism for nitric oxide-mediated protein modification. *J Biol Chem* 271(32):19199-19208.
- Ellenhorn MJ. 1997. Chlorine. In: *Ellenhorn's medical toxicology. Diagnosis and treatment of human poisoning*. 2nd ed. Baltimore, MD: Williams and Williams, 1521.
- Ellenhorn MJ, Barceloux DG. 1988. Chlorine. In: *Medical toxicology. Diagnosis and treatment of human poisoning*. New York, NY: Elsevier, 878-879.
- Enarson DA, Maclean L, Dybuncio A, et al. 1984. Respiratory health at a pulpmill in British Columbia. *Arch Environ Health* 39(5):325-330.

9. REFERENCES

- EPA. 1988. Recommendations for and documentation of biological values for use in risk assessment. Cincinnati, OH: U.S. Environmental Protection Agency, Environmental Criteria and Assessment Office. EPA600687008.
- EPA. 1990. Interim methods for development of inhalation reference concentrations. Washington, DC: U.S. Environmental Protection Agency, Office of Health and Environmental Assessment, Office of Research and Development, Environmental Criteria and Assessment Office. EPA600890066A.
- EPA. 1993. A literature review of atmospheric transformation products of Clean Air Act Title III hazardous air pollutants. Research Triangle Park, NC: U.S. Environmental Protection Agency. EPA600R94088.
- 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. EPA600890066F.
- EPA. 1994b. Final draft for the drinking water criteria document on chlorine dioxide, chlorite and chlorate. Cincinnati, OH: U.S. Environmental Protection Agency. EPA68C20139. PB94179884.
- EPA. 1997. Special report on environmental endocrine disruption: An effects assessment and analysis. Washington, DC: U.S. Environmental Protection Agency, Risk Assessment Forum. EPA630R96012.
- EPA. 1999. Reregistration eligibility decision (RED). Chlorine gas. U.S. Environmental Protection Agency. EPA738R99001. <http://www.epa.gov/oppsrrd1/REDs/4022red.pdf>. March 14, 2007.
- EPA. 2000a. Benchmark dose technical guidance document. Washington, DC: U. S. Environmental Protection Agency, Risk Assessment Forum. EPA630R00001.
- *EPA. 2000b. Method 26. Hydrogen chloride, halides, halogens. Emission Measurement Center. U.S. Environmental Protection Agency. <http://www.epa.gov/ttn/emc/promgate/m-26.pdf>. April 12, 2007.
- EPA. 2003. National primary drinking water regulations. Washington, DC: U.S. Environmental Protection Agency, Office of Ground Water and Drinking Water. EPA816F03016. <http://www.epa.gov/safewater/mcl.html>. 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. 2006 edition of drinking water standards and health advisories. Washington, DC: U.S. Environmental Protection Agency. EPA822R04005. <http://epa.gov/waterscience/criteria/drinking/>. April 11, 2007.
- EPA. 2006b. Determining active oxidant species reacting with organophosphate pesticides in chlorinated drinking water. Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development. EPA600R06103.
- EPA. 2007a. Acute exposure guideline levels (AEGs). Washington, DC: U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics. <http://www.epa.gov/oppt/aegl/pubs/compiled.pdf>. May 11, 2007.

9. REFERENCES

- EPA. 2007i. Designated as hazardous substances in accordance with Section 311(b)(2)(A) of the Clean Water Act. Code of Federal Regulations. 40 CFR 116.4. Washington, DC: U.S. Environmental Protection Agency. <http://www.epa.gov/epacfr40/chapt-I.info/chi-toc.htm>. April 11, 2007.
- EPA. 2007b. Hazardous air pollutants. Clean Air Act. U.S. Environmental Protection Agency. United States Code. 42 USC 7412. <http://www.epa.gov/ttn/atw/orig189.html>. April 11, 2007.
- EPA. 2007c. Master testing list. Washington, DC: Office of Pollution Prevention and Toxics, U.S. Environmental Protection Agency. <http://www.epa.gov/opptintr/chemtest/pubs/mtl.htm>. May 10, 2007.
- EPA. 2007d. Regulated toxic substances and threshold quantities for accidental release prevention. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 68.130. <http://www.epa.gov/epacfr40/chapt-I.info/chi-toc.htm>. April 11, 2007.
- EPA. 2007j. Reportable quantities of hazardous substances designated pursuant to Section 311 of the Clean Water Act. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 117.3. <http://www.epa.gov/epacfr40/chapt-I.info/chi-toc.htm>. April 11, 2007.
- EPA. 2007e. Superfund, emergency planning, and community right-to-know programs. Designation, reportable quantities, and notifications. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 302.4. <http://www.epa.gov/epacfr40/chapt-I.info/chi-toc.htm>. April 11, 2007.
- EPA. 2007f. Superfund, emergency planning, and community right-to-know programs. Extremely hazardous substances and their threshold planning quantities. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 355, Appendix A. <http://www.epa.gov/epacfr40/chapt-I.info/chi-toc.htm>. April 11, 2007.
- EPA. 2007g. Superfund, emergency planning, and community right-to-know programs. Toxic chemical release reporting. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 372.65. <http://www.epa.gov/epacfr40/chapt-I.info/chi-toc.htm>. April 11, 2007.
- EPA. 2007h. Tolerances and exemptions from tolerances for pesticide chemicals in food. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 180.1095. <http://www.epa.gov/epacfr40/chapt-I.info/chi-toc.htm>. May 11, 2007.
- EPA. 2007k. Tolerances and exemptions from tolerances for pesticide chemicals in food. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 180.1235. <http://www.epa.gov/epacfr40/chapt-I.info/chi-toc.htm>. June 28, 2007.
- Eun HC, Young Lee A, Lee YS. 1984. Sodium hypochlorite dermatitis. *Contact Dermatitis* 11:45.
- Evans RB. 2004. Chlorine: State of the art. *Lung* 183(3):151-167.
- Exon JH, Koller LD, O'Reilly CA, et al. 1987. Immunotoxicologic evaluation of chlorine-based drinking water disinfectants, sodium hypochlorite and monochloramine. *Toxicology* 44:257-269.
- Farr JP, Smith WL, Steichen DS. 2003. Bleaching agents. In: *Kirk-Othmer encyclopedia of chemical toxicology*. Vol 4. John Wiley & Sons, Inc., 43-81. <http://www.mrw.interscience.wiley.com/emrw/9780471238966/kirk/article/survfar.a01/current/pdf>. March 28, 2007.

9. REFERENCES

- FDA. 2006. Indirect food additives: Adhesives and components of coatings. U.S. Food and Drug Administration. Code of Federal Regulations. 21 CFR 175.
<http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm>. May 10, 2007.
- FDA. 2007a. Everything added to food in the United States (EAFUS). Washington, DC: U.S. Food and Drug Administration. <http://vm.cfsan.fda.gov/~dms/eafus.html>. April 11, 2007.
- FDA. 2007b. Food additives permitted for direct addition to food for human. U.S. Food and Drug Administration. Code of Federal Regulations. 21 CFR 172.
<http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm>. May 15, 2007.
- FEDRIP. 2009. Chlorine. Federal Research in Progress database. Springfield, VA: National Technical Information Service. January 21, 2009.
- Ferris BG, Burgess WA, Worcester J. 1967. Prevalence of chronic respiratory disease in a pulp mill and a paper mill in the United States. *Br J Ind Med* 24:26-37.
- Ferris BG, Puleo S, Chen HY. 1979. Mortality and morbidity in a pulp and a paper mill in the United States: A ten-year follow-up. *Br J Ind Med* 36:127-134.
- Fleta J, Calvo C, Zuniga J, et al. 1986. Intoxication of 76 children by chlorine gas. *Hum Toxicol* 5(2):99-100.
- Fomon 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.
- Fomon SJ, Haschke F, Ziegler EE, et al. 1982. Body composition of reference children from birth to age 10 years. *Am J Clin Nutr* 35(Suppl 5):1169-1175.
- Foulks CJ. 1981. Myasthenia gravis presenting as laryngeal stridor after exposure to chlorine gas. *South Med J* 74(11):1423-1424.
- Fukayama MY, Tan H, Wheeler WB, et al. 1986. Reactions of aqueous chlorine and chlorine dioxide with model food compounds. *Environ Health Perspect* 69:267-274.
- Furukawa F, Kurata Y, Kokubo T, et al. 1980. [Oral acute and subchronic toxicity studies for sodium hypochlorite in F-344 rats.] *Eisei Shikensho Hokoku* 98:62-69. (Japanese)
- Gagnaire F, Azim S, Bonnet P, et al. 1994. Comparison of the sensory irritation response in mice to chlorine and nitrogen trichloride. *J Appl Toxicol* 14(6):405-409.
- Gapany-Gapanavicius M, Yellin A, Almog S, et al. 1982. Pneumomediastinum: A complication of chlorine exposure from mixing household cleaning agents. *J Am Med Assoc* 248(3):349-350.
- Gautrin D, Leroyer C, Infante-Rivard C, et al. 1999. Longitudinal assessment of airway caliber and responsiveness in workers exposed to chlorine. *Am J Respir Crit Care Med* 160:1232-1237.
- Gautrin D, Leroyer C, L'Archeveque J, et al. 1995. Cross-sectional assessment of workers with repeated exposure to chlorine over a three year period. *Eur Respir J* 8(12):2046-2054.

9. REFERENCES

- Giwercman 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.
- *Goffin V, Pierard GE, Henry F, et al. 1997. Sodium hypochlorite, bleaching agents, and the stratum corneum. *Ecotoxicol Environ Saf* 37:199-202.
- Goldfrank LR, Flomenbaum NE, Lewin NA, et al. 2002. Chlorine. In: *Goldfrank's toxicologic emergencies*. 7th ed. New York, NY: McGraw-Hill, 1458-1459.
- Graedel TE. 1978. Chemical compounds in the atmosphere. Orlando, FL: Academic Press, Inc., 30, 31, 34, 35.
- Graedel TE, Hawkins DT, Claxton LD. 1986. Atmospheric chemical compounds: Sources, occurrence, and bioassay. Orlando, FL: Academic Press, Inc., 70-71, 93.
- Grasemann H, Tschiedel E, Groch M, et al. 2007. Exhaled nitric oxide in children after accidental exposure to chlorine gas. *Inhal toxicol* 19(10):895-898.
- *Griffith JF, Nixon GA, Bruce RD, et al. 1980. Dose-response studies with chemical irritants in the albino rabbit eye as a basis for selecting optimum testing conditions for predicting hazard to the human eye. *Toxicol Appl Pharmacol* 55:501-513.
- Gross EA, Morgan KT. 1991. Architecture of nasal passages and larynx. In: *Comparative biology of the normal lung*. Boca Raton, FL: CRC Press, 7-25.
- Güloğlu C, Kaara IH, Erten PG. 2002. Acute accidental exposure to chlorine gas in the Southeast of Turkey. A study of 106 cases. *Environ Res* 88(2):89-93.
- Gunnarsson M, Walther SM, Seidal T, et al. 1998. Exposure to chlorine gas: Effects on pulmonary function and morphology in anaesthetised and mechanically ventilated pigs. *J Appl Toxicol* 18(4):249-255.
- Guzelian PS, Henry CJ, Olin SS, eds. 1992. Similarities and differences between children and adults: Implications for risk assessment. Washington, DC: International Life Sciences Institute Press.
- *Habets JMW, Geursen-Reitsma AM, Stole E, et al. 1986. Sensitization to sodium hypochlorite causing hand dermatitis. *Contact Dermatitis* 15:140-142.
- 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.
- Hasan FM, Gehshan A, Fuleihan FJ. 1983. Resolution of pulmonary dysfunction following acute chlorine exposure. *Arch Environ Health* 38(2):76-80.
- Hasegawa R, Takahashi M, Kokubo T, et al. 1986. Carcinogenicity study of sodium hypochlorite in F344 rats. *Food Chem Toxicol* 24(12):1295-1302.
- Hayashi M, Kishi M, Sofuni T, et al. 1988. Micronucleus tests in mice on 39 additives and eight miscellaneous chemicals. *Food Chem Toxicol* 26(6):487-500.

9. REFERENCES

- Hayatsu H, Hoshino H, Kawazoe Y. 1971. Potential cocarcinogenicity of sodium hypochlorite. *Nature* 233:495.
- HazDat. 2007. Chlorine. 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>. May 17, 2007.
- Heldaas SS, Langard S, Andersen A. 1998. Incidence of cancer in a cohort of magnesium production workers. *Br J Ind Med* 46:617-623.
- Henneberger PK, Lax MB, Ferris BG Jr. 1996. Decrements in spirometry values associated with chlorine gassing events and pulpmill work. *Am J Respir Crit Care Med* 153(1):225-231.
- *Hess JA, Molinari JA, Gleason MJ, et al. 1991. Epidermal toxicity of disinfectants. *Am J Dent* 41(1):51-56.
- 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.
- Hook CT, Lowry LD. 1974. Effect of chlorine bleach on the esophagus. *Ann Otol Rhinol Laryngol* 83:709-713.
- Horton DK, Berkowitz Z, Kaye WE. 2002. The public health consequences from acute chlorine releases, 1993-2000. *J Occup Environ Med* 44(10):906-913.
- *Hostynek JJ, Patrick E, Younger B, et al. 1989. Hypochlorite sensitivity in man. *Contact Dermatitis* 20:32-37.
- Hostynek JJ, Wilhelm KP, Cua AB, et al. 1990. Irritation factors of sodium hypochlorite solutions in human skin. *Contact Dermatitis* 23(5):316-324.
- Hov O. 1985. The effect of chlorine on the formation of photochemical oxidants in southern Telemark, Norway. *Atmos Environ* 19(3):417-485.
- Howard C, Ducre B, Burda AM, et al. 2007. Management of chlorine gas exposure. *J Emerg Nurs* 33(4):402-404.
- HSDB. 2009. Chlorine. Hazardous Substances Data Bank. National Library of Medicine. <http://toxnet.nlm.nih.gov>. March 11, 2009.
- Hyback B. 1999. A long-term study of pulmonary function at low exposures to chlorine. *Int Arch Occup Environ Health* 72:M24-M28.
- IARC. 1991. IARC monographs on the evaluation of carcinogenic risks to humans. Volume 52. Lyon, France: World Health Organization. International Agency for Research on Cancer, 45-71.
- IARC. 2006. Agents reviewed by the IARC monographs. Volumes 1-96. Lyon, France: International Agency for Research on Cancer. <http://monographs.iarc.fr/ENG/Classification/index.php>. April 11, 2007.

9. REFERENCES

- Ibanes JD, Leiniger JR, Jarabek AM, et al. 1996. Reexamination of respiratory tract response in rats, mice and rhesus monkeys chronically exposed to inhaled chlorine. *Inhal Toxicol* 8:859-876.
- IPCS. 1996. Chlorine. Poisons information monograph 947. International Programme on Chemical Safety. PIM 947. <http://www.inchem.org/documents/pims/chemical/pim947.htm>. March 11, 2009.
- IRIS. 2007. Chlorine. Integrated Risk Information System. Washington, DC: U.S. Environmental Protection Agency. <http://www.epa.gov/iris/subst/index.html>. May 11, 2007.
- Ishidate M, Sofuni T, Yoshikawa K, et al. 1984. Primary mutagenicity screening of food additives currently used in Japan. *Food Chem Toxicol* 22(8):623-636.
- ITA. 2007. 2801100000--Chlorine: U.S. Trade quick-reference tables. International Trade Administration, U.S. Department of Commerce. <http://ita.doc.gov/td/industry/otea/trade-detail/index.html>. April 2, 2007.
- Jakobsson SW, Rajs J, Jonsson JA, et al. 1991. Poisoning with sodium hypochlorite solution. Report of a fatal case, supplemented with an experimental and clinic-epidemiological study. *Am J Forensic Med Pathol* 12(4):320-327.
- Jappinen P, Hakulinen T, Pukkala E, et al. 1987. Cancer incidence of workers in the Finnish pulp and paper industry. *Scand J Work Environ Health* 13:197-202.
- Jarabek AM, Schroeter JD, Andersen ME, et al. 2007. A hybrid CFD-PBPK model of chlorine gas uptake and tissue dosimetry in the upper respiratory tract (URT) of F344 rats. *Toxicologist* 96(1):83.
- Jiang XZ, Buckley LA, Morgan KT. 1983. Pathology of toxic responses to the RD50 concentration of chlorine gas in the nasal passages of rats and mice. *Toxicol Appl Pharmacol* 71(2):225-236.
- Johanson CE. 1980. Permeability and vascularity of the developing brain: Cerebellum vs. cerebral cortex. *Brain Res* 190(1):3-16.
- Jones RN, Hughes JM, Glindmeyer H, et al. 1986. Lung function after acute chlorine exposure. *Am Rev Respir Dis* 134(6):1190-1195.
- Joy RJT. 1997. Historical aspects of medical defense against chemical warfare. In: Office of the Surgeon General, Department of the Army, eds. *Textbook of military medicine: Medical aspects of chemical and biological warfare*. Washington, DC: U.S. Government Printing Office, 87-109.
- Joyner RE, Durel EG. 1962. Accidental liquid chlorine spill in a rural community. *J Occup Med* 4:152-154.
- Kaufman J, Burkons D. 1971. Clinical, roentgenologic, and physiologic effects of acute chlorine exposure. *Arch Environ Health* 23(1):29-34.
- Kennedy SM, Enarson DA, Janssen RG, et al. 1991. Lung health consequences of reported accidental chlorine gas exposure among pulp mill workers. *Am Rev Respir Dis* 143(1):74-79.
- Kilburn KH. 1995. Evidence that inhaled chlorine is neurotoxic and causes airways obstruction. *Int J Occup Med Toxicol* 4(2):267-276.

9. REFERENCES

- Kilburn KH. 2000. Chlorine-induced damage documented by neurophysiological, neuropsychological, and pulmonary testing. *Arch Environ Health* 55(1):31-37.
- Kilburn KH. 2003b. Effects of chlorine and its cresylate byproducts on brain and lung performance. *Arch Environ Health* 58(12):746-755.
- Klonne DR, Ulrich CE, Riley MG, et al. 1987. One-year inhalation toxicity study of chlorine in Rhesus monkeys (*Macaca mulatta*). *Fundam Appl Toxicol* 9(3):557-572.
- Knipping EM, Dabdub D. 2003. Impact of chlorine emissions from sea-salt aerosol on coastal urban ozone. *Environ Sci Technol* 37(2):275-284.
- Komori M, Nishio K, Kitada M, et al. 1990. Fetus-specific expression of a form of cytochrome P-450 in human livers. *Biochemistry* 29(18):4430-4433.
- Kowitz TA, Reba RC, Parker RT, et al. 1967. Effects of chlorine gas upon respiratory function. *Arch Environ Health* 14(4):545-558.
- Krishnan K, Andersen ME. 1994. Physiologically based pharmacokinetic modeling in toxicology. In: Hayes AW, ed. *Principles and methods of toxicology*. 3rd ed. New York, NY: Raven Press, Ltd., 149-188.
- Krishnan K, Andersen 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.
- Kurokawa Y, Takamura N, Matsushima Y, et al. 1984. Studies on the promoting and complete carcinogenic activities of some oxidizing chemicals in skin carcinogenesis. *Cancer Lett* 24:299-304.
- *Kurokawa Y, Takayama S, Konishi Y, et al. 1986. Long-term *in vivo* carcinogenicity tests of potassium bromate, sodium hypochlorite, and sodium chlorite conducted in Japan. *Environ Health Perspect* 69:221-235.
- Kutzman RS. 1983. A study of Fisher-344 rats subchronically exposed to 0, 0.5, 1.5, or 5.0 ppm chlorine. Upton, NY: Brookhaven National Laboratory. BNL 32710.
- Landau GD, Saunders WH. 1964. The effect of chlorine bleach on the esophagus. *Arch Otolaryngol* 80:174-176.
- Lakind JS, Holgate ST, Ownby DR, et al. 2007. A critical review of the use of Clara cell secretory protein (CC16) as a biomarker of acute or chronic pulmonary effects. *Biomarkers* 12(5):445-467.
- Lapenna D, Cuccurullo F. 1996. Hypochlorous acid and its pharmacological antagonism: An update picture. *Gen Pharmacol* 27(7):1145-1147.
- Lawson JJ. 1981. Chlorine exposure: A challenge to the physician. *Am Fam Physician* 23(1):135-138.
- Le Curieux F, Marzin D, Erb F. 1993. Comparison of three short-term assays: Results on seven chemicals. Potential contribution to the control of water genotoxicity. *Mutat Res* 319(3):223-236.

9. REFERENCES

- Leeder JS, Kearns GL. 1997. Pharmacogenetics in pediatrics: Implications for practice. *Pediatr Clin North Am* 44(1):55-77.
- Lemière C, Malo JL, Boutet M. 1997. Reactive airways dysfunction syndrome due to chlorine: Sequential bronchial biopsies and functional assessment. *Eur Respir J* 10(1):241-244.
- Leonardos G, Kendall D, Barnard NJ. 1968. Odor threshold determination of 53 odorant chemicals In: 61st annual meeting of the Air Pollution Control Association, St. Paul, MN, June 23-27, 1968. Pittsburgh, PA: Air Pollution Control Association. Abstract 68-13.
- Leroyer C, Malo JL, Girard D, et al. 1999. Chronic rhinitis in workers at risk of reactive airways dysfunction syndrome due to exposure to chlorine. *Occup Environ Med* 56(5):334-338.
- Leroyer C, Malo JL, Infante-Rivard C, et al. 1998. Changes in airway function and bronchial responsiveness after acute occupational exposure to chlorine leading to treatment in a first aid unit. *Occup Environ Med* 55(5):356-359.
- Leube G, Kreiter H. 1971. Akute chlogasvergiftung. *Med Klin [Klin]* 66(10):354-357. (German)
- Leung HW. 1993. Physiologically-based pharmacokinetic modelling. In: Ballantyne B, Marrs T, Turner P, eds. *General and applied toxicology*. Vol. 1. New York, NY: Stockton Press, 153-164.
- Leustik M, Doran S, Bracher M, et al. 2008. Mitigation of chlorine-induced lung injury by low-molecular-weight antioxidants. *Am J Physiol Lung Cell Mol Physiol* 295(5):L733-L743.
- Levy JM, Hessel SJ, Nykamp PW, et al. 1986. Detection of the cerebral lesions of chlorine intoxication by magnetic resonance imaging. *Magn Reson Imaging* 4(1):51-52.
- Lewis RJ. 2000. *Sax's dangerous properties of industrial materials*. New York, NY: John Wiley & Sons, Inc., 776-777.
- Lewis RJ. 2001. *Hawley's condensed chemical dictionary*. New York, NY: John Wiley & Sons, Inc., 246, 247.
- Lide DR, ed. 2005. Chlorine. In: *CRC handbook of chemistry and physics*. Boca Raton: Taylor & Francis Group, 4-10, 4-57.
- Livingston AL. 1978. Forage plant estrogens. *J Toxicol Environ Health* 4(2-3):301-324.
- Lubbers JR, Chauan S, Bianchine JR. 1982. Controlled clinical evaluations of chlorine dioxide, chlorite and chlorate in man. *Environ Health Perspect* 46:57-62.
- Martin JG, Campbell HR, Iijima H, et al. 2003. Chlorine-induced injury to the airways in mice. *Am J Respir Crit Care Med* 168(5):568-574.
- Matsuoka A, Hayashi M, Ishidate N. 1979. Chromosomal aberration tests on 29 chemicals combined with S9 mix *in vitro*. *Mutat Res* 66:277-290.
- 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(2-3):135-149.

9. REFERENCES

- McNulty MJ, Chang JCF, Barrow CS. 1983. Sulfhydryl oxidation in rat nasal mucosal tissues after chlorine inhalation. *Toxicol Lett* 17:241-246.
- Meakins JC, Priestley JG. 1919. The after-effects of chlorine gas poisoning. *Can Med Assoc J* 9:968-974.
- Meier JR, Bull RJ, Stober JA, et al. 1985. Evaluation of chemicals used for drinking water disinfection for production of chromosomal damage and sperm-head abnormalities in mice. *Environ Mutagen* 7:201-211.
- Mink FL, Coleman WE, Munch JW, et al. 1983. *In vivo* formation of halogenated reaction products following peroral sodium hypochlorite. *Bull Environ Contam Toxicol* 30:394-399.
- 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.
- Morris JB, Wilkie WS, Shusterman DJ. 2005. Acute respiratory responses of the mouse to chlorine. *Toxicol Sci* 83:380-387.
- Morris JC. 1946. The mechanism of the hydrolysis of chlorine. *J Am Chem Soc* 68(9):1692-1694.
- Morselli PL, Franco-Morselli R, Bossi L. 1980. Clinical pharmacokinetics in newborns and infants: Age-related differences and therapeutic implications. *Clin Pharmacokin* 5(6):485-527.
- Moulick ND, Banavali S, Abhyankar AD, et al. 1992. Acute accidental exposure to chlorine fumes. A study of 82 cases. *Indian J Chest Dis Allied Sci* 34(2):85-89.
- Mrvos R, Dean BS, Krenzelok EP. 1993. Home exposures to chlorine/chloramine gas: Review of 216 cases. *South Med J* 86(6):654-657.
- Mühlendahl KE, Oberdisse U, Krienke EG. 1978. Local injuries by accidental ingestion of corrosive substances by children. *Arch Toxicol* 39:299-314.
- NAS/NRC. 1989. Report of the oversight committee. In: *Biologic markers in reproductive toxicology*. Washington, DC: National Academy of Sciences, National Research Council, National Academy Press, 15-35.
- Nemery B, Hoet PHM, Nowak D. 2002. Indoor swimming pools, water chlorination and respiratory health. *Eur Respir J* 19:790-793.
- Ngo A, Ponampalam R, Leong M, et al. 2007. Chlorine and its impact on an emergency department. *Prehospital Disaster Med* 22(2):136-139.
- NIOSH. 1976. Criteria for a recommended standard. Occupational exposure to chlorine. Cincinnati, OH: National Institute for Occupational Safety and Health.
- *NIOSH. 1991. Immune responsiveness in chlorine exposed rats. Cincinnati, OH: National Institute for Occupational Safety and Health. NIOSH-R03OH02425. PB92124478.
- NIOSH. 1994. Method 6011. NIOSH manual of analytical methods. Atlanta, GA: National Institute for Occupational Safety and Health. <http://www.cdc.gov/niosh/nman/methods-c/html>. August 09, 2007.

9. REFERENCES

- NIOSH. 1995. Health hazard evaluation report. International association of fire fighters, Henderson, Nevada. National Institute for Occupational Safety and Health. HETA-91-0230-2543. <http://www.cdc.gov/niosh/hhe/reports/pdfs/1991-0230-2543.pdf>. March 19, 2007.
- NIOSH. 2005. Chlorine. 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/>. May 11, 2007.
- *Nixon GA, Tyson CA, Wertz WC. 1975. Interspecies comparisons of skin irritancy. *Toxicol Appl Pharmacol* 31:481-490.
- Nodelman V, Ultman JS. 1999a. Longitudinal distribution of chlorine absorption in human airways: A comparison to ozone absorption. *J Appl Physiol* 87(6):2073-2080.
- Nodelman V, Ultman JS. 1999b. Longitudinal distribution of chlorine absorption in human airways: Comparison of nasal and oral quiet breathing. *J Appl Physiol* 86(6):1984-1993.
- NRC. 1993. Pesticides in the diets of infants and children. National Research Council. Washington, DC: National Academy Press.
- NTP. 1992. Toxicology and carcinogenesis studies of chlorinated water (CAS Nos. 7782-50-5 and 7681-52-9) and chloraminated water (CAS No. 10599-90-3) (deionized and charcoal-filtered) in F344/N rats and B6C3F1 mice (drinking water studies). Research Triangle Park, NC: National Toxicology Program. NTP TR-392. NIH Publication No. 92-2847.
- NTP. 2005. Introduction. Report on carcinogens. 11th ed. Research Triangle Park, NC: National Toxicology Program, U.S. Department of Health and Human Services, Public Health Service. <http://ntp-server.niehs.nih.gov/ntp/roc/toc11.html>. March 08, 2006.
- NTSB. 1998. Railroad accident brief report. LAX 96 FR 010. Derailment and hazardous materials release with fatality. Montano Rail Lin, Alberton, Montana. April 11, 1996. Washington, DC: National Transportation Safety Board. RAB98-07.
- NTSB. 2002. Hazardous materials accident report. Hazardous materials release from railroad tank car with subsequent fire at Riverview, Michigan, July 14, 2001. Washington, DC: National Transportation Safety Board. PB02917002.
- NTSB. 2005. Collision of Norfolk Southern Freight Train 152 with standing Norfolk Southern Local Train P22 with subsequent hazardous materials release at Graniteville, South Carolina, January 06, 2005. Washington, DC: National Transportation Safety Board. PB05916304.
- NTSB. 2006. National Transportation Safety Board railroad accident report: Collision of Union Pacific Railroad Train MHOTU-23 with BNSF Railway Company Train MEAP-TUL-126-D with subsequent derailment and hazardous materials release in Macdona, Texas, June 28, 2004. <http://www.ntis.gov/search/product.asp?ABBR=PB2006916303&starDB=GRAHIST>. July 05, 2007.
- O'Neil MJ, Smith A, Heckelman PE, eds. 2001. Chlorine. In: *The Merck index*. Whitehouse Station, NJ: Merck & Co. Inc., 361-363.

9. REFERENCES

- OSHA. 2006a. Air contaminants. Occupational safety and health standards for shipyard employment. Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1915.1000. <http://www.osha.gov/comp-links.html>. April 11, 2007.
- OSHA. 2006b. Gases, vapors, fumes, dusts, and mists. Safety and health regulations for construction. Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1926.55, Appendix A. <http://www.osha.gov/comp-links.html>. April 11, 2007.
- OSHA. 2006c. Limits for air contaminants. Occupational safety and health standards. Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1910.1000. <http://www.osha.gov/comp-links.html>. April 11, 2007.
- OSHA. 2006d. List of highly hazardous chemicals, toxics, and reactives. Occupational safety and health standards. Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1910.119. <http://www.osha.gov/comp-links.html>. April 11, 2007.
- OSHA. 2007a. Chlorine and chlorine dioxide in workplace atmospheres. Occupational Safety and Health Administration. <http://www.osha.gov/dts/sltc/methods/inorganic/t-id126sgx-pv-01-0112-m/t-id126sgx-pv-0.html>. July 05, 2007.
- OSHA. 2007b. Chlorine in workplace atmospheres. Occupational Safety and Health Administration. <http://www.osha.gov/dts/sltc/methods/inorganic/id101.html>. July 05, 2007.
- Osmundsen PE. 1978. Contact dermatitis due to sodium hypochlorite. *Contact Dermatitis* 4:177-178.
- OTA. 1990. Neurotoxicity: Identifying and controlling poisons of the nervous system. Washington, DC: Office of Technology Assessment. OTABA438.
- Owen GM, Brozek J. 1966. Influence of age, sex and nutrition on body composition during childhood and adolescence. In: Falkner F, ed. *Human development*. Philadelphia, PA: WB Saunders, 222-238.
- Patil LR, Smith RG, Vorwald AJ, et al. 1970. The health of diaphragm cell workers exposed to chlorine. *Am Ind Hyg Assoc J* 31(6):678-686.
- Pfeiffer EH. 1978. Health aspects of water chlorination with special consideration on the carcinogenicity of chlorine. *Zentralb Bakteriolog [B]* 166:185-211.
- Pike DG, Peabody JW, Davis EW, et al. 1963. A re-evaluation of the dangers of Clorox ingestion. *J Pediatr* 63(2):303-305.
- Ploysongsang Y, Beach BC, DiLisio RE. 1982. Pulmonary function changes after acute inhalation of chlorine gas. *South Med J* 75(1):23-26.
- Prater JF. 1990. Inhalation injury after exposure to chlorine gas leak. *J Emerg Nurs* 16(4):243-244.
- Ramachandran KA, Chawla IS, Khokhar P. 1990. Acute chlorine poisoning: A study of 84 cases. *J Assoc Physicians India* 38(7):489-490.
- Roberts KC, Moss OR, Sochaski MA, et al. 2007. Uptake and internal dosimetry of chlorine in the upper respiratory tract (URT) of F344 rats. *Toxicologist* 96(1):166.

9. REFERENCES

- Robertson AS. 1978. Alkali and chlorine products. In: Grayson M, Eckroth D, eds. Kirk-Othmer encyclopedia of chemical technology. Vol. 1. New York, NY: John Wiley & Sons, Inc., 799-883.
- Rosenkranz HS. 1973. Sodium hypochlorite and sodium perborate: Preferential inhibitors of DNA polymerase-deficient bacteria. *Mutat Res* 21:171-174.
- Ross MP, Spiller HA. 1999. Fatal ingestion of sodium hypochlorite bleach with associated hypernatremia and hyperchloremic metabolic acidosis. *Vet Hum Toxicol* 41(2):82-86.
- Rotman HH, Fliegelman MJ, Moore T, et al. 1983. Effects of low concentrations of chlorine on pulmonary function in humans. *J Appl Physiol* 54(4):1120-1124.
- RTECS. 2007. Chlorine. Registry of Toxic Effects on Chemical Substances. National Institute of Occupational Safety and Health. MDL Information Systems, Inc. May 15, 2007.
- Rupp H, Henschler D. 1967. [Effect of low chlorine and bromine concentrations on man.] *Int Arch Gewerbepathol Gewerbehyg* 23(1):79-90. (German)
- Ryazanov VA. 1962. Sensory physiology as basis for air quality standards. The approach used in the Soviet Union. *Arch Environ Health* 5:480-494.
- Salisbury DA, Enarson DA, Chan-Yeung M, et al. 1991. First-aid reports of acute chlorine gassing among pulp mill workers as predictors of lung health consequences. *Am J Ind Med* 20:71-81.
- Sandall TE. 1922. The later effects of gas poisoning. *Lancet* 2:857-859.
- Sasaki M, Sugimura K, Mitsuaki AY, et al. 1980. Cytogenetic effects of 60 chemicals on cultured human and Chinese hamster cells. *La Kromosom II* 20:574-584.
- Schins RP, Emmen H, Hoogendijk L, et al. 2000. Nasal inflammatory and respiratory parameters in human volunteers during and after repeated exposure to chlorine. (Comment in: *Eur Respir J* 19(2):381-382). *Eur Respir J* 16(4):626-632.
- Schmittinger P, Florkiewicz T, Curlin LC, et al. 2006. Chlorine. In: Ullmann's encyclopedia of industrial chemistry. Wiley-VCH Verlag GmbH & Co. http://www.mrw.interscience.wiley.com/emrw/9783527306732/ueic/article/a06_399/current/pdf. March 28, 2007.
- Schraufstätter IU, Browne K, Harris A, et al. 1990. Mechanisms of hypochlorite injury of target cells. *J Clin Invest* 85:554-562.
- Schreuder MDJ, Brewer CA. 2001. Effects of short-term exposure to chlorine gas on morphology and physiology of *Pinus ponderosa* and *Pseudotsuga menziesii*. *Ann Bot* 88:187-195.
- Schulte EE. 1999. Soil land applied chlorine. <http://learningstore.uvex.edu/pdf%5CA3556.pdf>. May 16, 2007.
- Schwartz DA, Smith DD, Lakshiminarayan S. 1990. The pulmonary sequelae associated with accidental inhalation of chlorine gas. *Chest* 97(4):820-825.

9. REFERENCES

- Setchell BP, Waites GMH. 1975. The blood-testis barrier. In: Creep RO, Astwood EB, Geiger SR, eds. Handbook of physiology: Endocrinology V. Washington, DC: American Physiological Society, 143-172.
- Sexton JD, Pronchik DJ. 1998. Chlorine inhalation: The big picture. *J Toxicol Clin Toxicol* 36(1-2):87-93.
- Shusterman D, Murphy MA, Balmes J. 1998. Subjects with seasonal allergic rhinitis and nonrhinitic subjects react differentially to nasal provocation with chlorine gas. *J Allergy Clin Immunol* 101(6 Pt 1):732-740.
- Shusterman D, Murphy MA, Balmes J. 2003b. Influence of age, gender, and allergy status on nasal reactivity to inhaled chlorine. *Inhal Toxicol* 15(12):1179-1189.
- Skljanskaja RM, Rappoport TL. 1935. [Experimental studies on chronic poisoning and the development of the offspring of chlorine-poisoned rabbits.] *Naunyn Schmiedebergs Arch Exp Pathol Pharmacol* 177:276-285. (German)
- Snoeyink VL, Jenkins D. 1980. Water chemistry. New York, NY: John Wiley & Sons, Inc., 386-404.
- Sochaski MA, Jarabek AM, Murphy J, et al. 2008. 3-Chlorotyrosine and 3,5-dichlorotyrosine as biomarkers of respiratory tract exposure to chlorine gas. *J Anal Toxicol* 32(1):99-105.
- SRI. 2006. Chlorine. 2006 Directory of chemical producers. United States. Menlo Park, CA: SRI Consulting, 520-521.
- SRI. 2008. Chlorine. 2008 Directory of chemical producers. United States. Menlo Park, CA: SRI Consulting, 486-487.
- Staudinger J, Roberts PV. 1996. A critical review of Henry's law constants for environmental applications. *Crit Rev Environ Sci* 26:205-297.
- Strange DC, Finneran JC, Shumacker HB, et al. 1951. Corrosive injury of the stomach. *AMA Arch Surg* 254(21):350-357.
- Suh DH, Abdel-Rahman MS. 1983. Kinetics study of chlorine dioxide in rat. *J Toxicol Environ Health* 12:467-473.
- Suzuki S, Sakamoto S, Maniwa K, et al. 2001. Fatal pulmonary arterial thrombosis associated with chlorine gas poisoning. *Clin Appl Thromb Hemost* 7(4):356-358.
- Tanaka PL, Riemer DD, Chang S, et al. 2003. Direct evidence for chlorine-enhanced urban ozone formation in Houston, TX. *Atmos Environ* 37:1393-1400.
- Tchobanoglous G, Schroeder ED. 1985. Water quality. Characteristics, modeling, modification. Reading, MA: Addison-Wesley Publishing Co., 559-570.
- The Chlorine Institute. 1998. Molecular chlorine: Health and environmental effects. Pamphlet 90. Edition 2. The Chlorine Institute, Inc.

9. REFERENCES

- The Chlorine Institute. 2006. Pamphlet 96. Sodium hypochlorite manual. Edition 3. The Chlorine Institute, Inc.
- The Chlorine Institute. 2008. North American chlor-alkali industry plants and production data report – 2007. Pamphlet 10. The Chlorine Institute, Inc.
- Thomas HL, Murray V. 2008. Review of acute chemical incidents involving exposure to chlorine associated with swimming pools in England and Wales. *J Public Health (Oxf)* 30(4):391-397.
- 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.
- Tian X, Tao H, Brisolaro J, et al. 2008. Acute lung injury induced by chlorine inhalation in C57BL/6 and FVB/N mice. *Inhal Toxicol* 20(9):783-793.
- TRI06. 2008. 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/>. February 04, 2009.
- Underhill FP. 1920. Alterations in blood concentration. *The lethal war gases*. New Haven: Yale University Press, 40-83.
- USB. 2007. Investigation report: Chlorine release. (16 Medically evaluated, community evacuated). U.S. Chemical Safety and Hazard Investigation Board. http://www.csb.gov/assets/document/DPC2-_Final.pdf. May 27, 2010.
- U.S. Census Bureau. 2008. Current industrial reports. Inorganic chemicals. <http://www.census.gov/cir/www/325/mq325a.html>. March 13, 2009.
- U.S. Census Bureau. 2009. Current industrial reports (CIR) U.S. Census Bureau. <http://www.census.gov/cir/www/325/mq325a.html>. March 31, 2009.
- U.S. Chemical Safety and Hazard Investigation Board. 2003. Investigation report, chlorine release. Washington, DC: U.S. Chemical Safety and Hazard Investigation Board. 2002-04-I-MO. PB2003103273.
- Van Joost TH, Harris JMW, Stolz E, et al. 1987. Sodium hypochlorite sensitization. *Contact Dermatitis* 16:114-115.
- Van Sickle D, Wenck MA, Belflower A, et al. 2009. Acute health effects after exposure to chlorine gas released after a train derailment. *Am J Emerg Med* 27(1):1-7.
- 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* 42:417-423.
- Vetrano KM. 2001. Molecular chlorine: Health and environmental effects. *Rev Environ Contam Toxicol* 170:75-140.
- Viccellio P, Bania T, Brent J, et al. 1998. Chlorine gas. In: *Emergency toxicology*. 2nd ed. Philadelphia, PA: Lippincott-Raven Press, 444-445.

9. REFERENCES

- 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(2):476-483.
- Vohra R, Clark RF. 2006. Chlorine-related inhalation injury from a swimming pool disinfectant in a 9-year-old girl. *Pediatr Emerg Care* 22(4):254-257.
- Wang L, Najafi R, Najafi K, et al. 2007. Hypochlorous acid as a potential wound care agent. *J Burns Wound* 6:65-79.
- Wang TZ, Margerum DW. 1994. Kinetics of reversible chlorine hydrolysis: Temperature dependence and general-acid/base-assisted mechanisms. *Inorg Chem* 33:1050-1055.
- Ward MJ, Routledge PA. 1988. Hypernatraemia and hyperchloraemic acidosis after bleach ingestion. *Hum Toxicol* 7:37-38.
- Weedon FR, Hartzell A, Setterstrom C. 1940. Toxicity of ammonia, chlorine, hydrogen cyanide, hydrogen sulphide, and sulphur dioxide gasses. V. Animals. *Contrib Boyce Thompson Inst* 11:365-385.
- Wegman DH, Eisen EA. 1990. Acute irritants: More than a nuisance. *Chest* 97(4):773-775.
- Weill H, George R, Schwarz M, et al. 1969. Late evaluation of pulmonary function after acute exposure to chlorine gas. *Am Rev Respir Dis* 99:374-379.
- Wenck MA, van Sickle D, Drociuk D, et al. 2007. Rapid assessment of exposure to chlorine released from a train derailment and resulting health impact. *Public Health Rep* 122(6):784-792.
- West JR, Smith HW, Chasis H. 1948. Glomerular filtration rate, effective renal blood flow, and maximal tubular excretory capacity in infancy. *J Pediatr* 32:10-18.
- WHO. 1982. Chlorine and hydrogen chloride. Environmental Health Criteria 21. Geneva, Switzerland: World Health Organization.
- WHO. 2000. Air quality guidelines. 2nd ed. Geneva, Switzerland: World Health Organization. <http://www.euro.who.int/Document/AIQ/AirQualRepMtg.pdf>. March 08, 2006.
- WHO. 2004. Guidelines for drinking-water quality. Volume 1. Recommendations. 3rd ed. Geneva, Switzerland: World Health Organization. http://www.who.int/water_sanitation_health/dwq/gdwq3/en/. March 08, 2006.
- WHO. 2007. How to measure chlorine residual in water. World Health Organization. Tech Note No. 11. http://www.who.int/entity/water_sanitation_health/hygiene/envsan/chlorineresid.pdf. May 27, 2010.
- 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: Academic Press, 1-247.
- Winder C. 2001. The toxicology of chlorine. *Environ Res* 85(2):105-114.
- Withers RMJ, Lees FP. 1985b. The assessment of major hazards: The lethal toxicity of chlorine. Part 2. Model of toxicity to man. *J Hazard Mater* 12:283-302.

9. REFERENCES

- Wlodkowski TJ, Rosenkranz HS. 1975. Mutagenicity of sodium hypochlorite for *Salmonella typhimurium*. *Mutat Res* 31:39-42.
- Wolf DC, Morgan KT, Gross EA, et al. 1995. Two-year inhalation exposure of female and male B6C3F1 mice and F344 rats to chlorine gas induces lesions confined to the nose. *Fundam Appl Toxicol* 24(1):111-131.
- Wones RG, Deck CC, Stadler B, et al. 1993. Lack of effect of drinking water chlorine on lipid and thyroid metabolism in health humans. *Environ Health Perspect* 99:375-381.
- Yarrington CT. 1970. The experimental causticity of sodium hypochlorite in the esophagus. *Ann Otol Rhinol Laryngol* 79:895-899.
- Yildirim C, Kocoglu H, Goksu S, et al. 2004. Long-term pulmonary histopathologic changes in rats following acute experimental exposure to chlorine gas. *Inhal Toxicol* 16(14):911-915.
- Ziegler EE, Edwards BB, Jensen RL, et al. 1978. Absorption and retention of lead by infants. *Pediatr Res* 12(1):29-34.
- Zwart A, Woutersen RA. 1988. Acute inhalation toxicity of chlorine in rats and mice: Time-concentration-mortality relationships and effects on respiration. *J Hazard Mater* 19(2):195-208.