

CAS 106-47-8

Substance name *para*-Chloroaniline

Toxicity

para-Chloroaniline is classified as a carcinogen by authoritative sources.¹⁻³ Evidence is based primarily on cancers in the spleen and liver of test animals.¹ Both animal and human occupational exposures have resulted in methemoglobinemia, a blood disorder that results in hypoxia. Infants have also suffered from methemoglobinemia when chlorohexidine, which decomposes spontaneously to *para*-chloroaniline, was used in their hospital incubators.^{1,4}

Exposure

para-Chloroaniline has been used in the manufacture of dyes and pigments and as a chemical intermediate in the production of other chemicals.^{1,4} The general public may be exposed to *para*-chloroaniline through dyed textiles, printed papers, cosmetics, and pharmaceutical products.⁴ Testing on consumer products by the Danish EPA found the chemical in acrylic paints for children and dyed fabric on a stuffed bear.⁵

References

1. WHO, International Agency for Research on Cancer (IARC) Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume No 57: Occupational Exposures of Hairdressers and Barbers and Personal Use of Hair Colourants; Some Hair Dyes, Cosmetic Colourants, Industrial Dyestuffs and Aromatic Amines. 1993. <http://monographs.iarc.fr/ENG/Monographs/vol57/mono57-21.pdf>.
2. European Commission, Joint Research Centre ESIS data sheet for 4-chloroaniline (CAS# 106-47-8). Accessed June 2010. <http://ecb.jrc.ec.europa.eu/esis/>.
3. California Office of Environmental Health Hazard Assessment. List of Chemicals Known to the State to Cause Cancer or Reproductive Toxicity. Feb 5, 2010. http://www.oehha.org/prop65/prop65_list/files/P65single020510.pdf.
4. WHO, International Programme on Chemical Safety (IPCS) Concise International Chemical Assessment Document 48: 4-chloroaniline, 2003. <http://www.inchem.org/documents/cicads/cicads/cicad48.htm>.
5. Danish Ministry of the Environment, Environmental Protection Agency. Surveys on Chemicals in Consumer Products. Report 23 and 93 (2003, 2008). http://www.mst.dk/English/Chemicals/Consumer_Products/Surveys-on-chemicals-in-consumer-products.htm.