

CAS 95-80-7

Substance name 2,4-Diaminotoluene

Toxicity

2,4-Diaminotoluene is classified as a carcinogen by authoritative sources.¹⁻⁴ Evidence is based on liver and mammary gland tumors in rats and mice. The European Union considers it a genotoxic carcinogen.³ Oral studies in rodents have also shown adverse effects on the male reproductive tissues including testicular atrophy, altered levels of male hormones, and depression in spermatogenesis.³

Exposure

2,4-Diaminotoluene is used in the production of toluene diisocyanate which is used to make polyurethane. It is or has been used in the production of dyes used to color paper, fur, leather, and textile fabrics.^{2,3} 2,4-Diaminotoluene was detected in a children's doll fabric in testing of textile toys by the Dutch Government.⁵

References

1. WHO, International Agency for Research on Cancer (IARC) Monographs on the Evaluation of Carcinogenic Risks to Humans, Supplement No 7: Overall Evaluations of Carcinogenicity: An Updating of IARC Monographs Volumes 1 to 42. 1987.
2. U.S. DHHS, PHS, National Toxicology Program. Report on Carcinogens, Eleventh Edition. 2005. <http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s001acet.pdf>.
3. European Commission, Joint Research Centre. European Union Risk Assessment Report: 4-METHYL-M-PHENYLENEDIAMINE (TOLUENE-2,4-DIAMINE) RISK ASSESSMENT (CAS-No.: 95-80-7). May 2008. http://ecb.jrc.ec.europa.eu/DOCUMENTS/Existing-Chemicals/RISK_ASSESSMENT/REPORT/24tdareport064.pdf
4. California EPA, Office of Environmental Health Hazard Assessment. List of Chemicals Known to the State to Cause Cancer or Reproductive Toxicity. February 5, 2010.
5. Dutch Inspectorate for Health Protection and Veterinary Public Health (VWA/KvW). Market Surveillances on Toy Safety: Isophoron and phenol in floatable toys, lead and cadmium in wooden toys, wood preservatives in wooden toys, and Azo dyes in textile toys. Vwa/Kvw Report ND04o063/01. September 2004.