

CAS 75-07-0

Substance name Acetaldehyde

Toxicity

Acetaldehyde is classified as a carcinogen by authoritative sources.^{1,2,3} Prolonged inhalation exposure causes nasal cancers in test animals. Human evidence from workplace exposures is supportive but not conclusive.² Acetaldehyde is a major metabolite of ethanol in mammals and may be involved in fetal alcohol syndrome. For this reason, Reprotext classifies acetaldehyde as an A- unconfirmed human reproductive hazard.⁴

Exposure

Acetaldehyde is used primarily as a feedstock in the production of other chemicals. Other uses are or have been in leather tanning, in glues, in the paper industry, in the manufacture of cosmetics and plastics, and as a food flavoring agent.^{1,4} Acetaldehyde was detected in 6 out of 6 children's tent samples in testing by the Danish EPA.⁵ Acetaldehyde is listed as an ingredient in school glue and other arts and craft glues in the NLM Household Products Database.⁶

References

1. WHO, International Agency for Research on Cancer. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume No 71: Re-evaluation of Some Organic Chemicals, Hydrazine and Hydrogen Peroxide, Part Two. 1999. <http://monographs.iarc.fr/ENG/Monographs/PDFs/index.php>
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. U.S.EPA, Integrated Risk Information System (IRIS). Acetaldehyde (last revised 1991). <http://www.epa.gov/iris/subst/0290.htm>
4. Health Canada, Priority Substances List Assessment Report for Acetaldehyde. 2000. <http://www.hc-sc.gc.ca/ewh-semt/pubs/contaminants/psl2-lsp2/index-eng.php>
5. Danish Ministry of the Environment, Environmental Protection Agency. Survey of Chemical Substances in Consumer Products, Report 46, 2004. http://www.mst.dk/English/Chemicals/Consumer_Products/Surveys-on-chemicals-in-consumer-products.htm.
6. National Institutes of Health, National Library of Medicine, Household Products Database. <http://householdproducts.nlm.nih.gov/> Accessed May 2010.