2-Amino-5-Nitrothiazole

2-Amino-5-nitrothiazole is a synthetic veterinary antiprotozoal agent used since 1950 to treat farm fowl and pigeons. It is also used as an intermediate in the manufacture of a group of dyes known as disperse azo dyes. It is not known to occur as a natural product. People may be exposed to 2-amino-5-nitrothiazole thorough contact with birds treated with the drug, releases from poultry farms, and occupational exposures in the dye industry.

2-Amino-5-nitrothiazole passed the animal data screen, underwent a preliminary toxicological evaluation, and is being brought to the Carcinogen Identification Committee for consultation. This is a compilation of the relevant studies identified during the preliminary toxicological evaluation.

Epidemiological data

No cancer epidemiology studies were identified.

Animal carcinogenicity data

- Long-term feeding studies in mice
  - 104-week studies in male and female B6C3F1 mice: NCI (1978)

- Long-term feeding studies in rats
  - 110-week exposure and additional one-week observation in male and female F344 rats: NCI (1978)
  - 46-week exposure and additional 20-week observation in weanling female Sprague-Dawley rats: Cohen et al. (1975)

Other relevant data

- Genotoxicity
  - Hepatocyte primary culture/DNA repair test: Williams et al. (1982)
  - Mutagenicity test in Klebsiella pneumonia: Voogd et al. (1983)
  - SOS chromotest in E. Coli: von der Hude et al. (1988)
  - Mutagenicity assays in Salmonella typhimurium and E. Coli: Voogd et al. (1983); additional studies reviewed in CCRIS (1995)
  - Mitotic gene conversion assay in Saccharomyces cerevisiae: Voogd et al. (1983)

Reviews

- IARC (1983)
References


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1 Copies of these listed references, as either the abstract, the relevant sections of the publication, or the complete publication, have been provided to members of the Carcinogen Identification Committee. These references have been provided in the order in which they are discussed in this document.