**Dicofol**

Dicofol is an organochlorine miticide that is used on a wide variety of crops, including cotton, citrus, tree nuts, beans, apples, stonefruit, cucurbits, wine grapes, strawberries, mint, and peppers. It is moderately persistent in the environment (U.S. EPA, 1998, p. 74). Workers involved in the manufacture and application of dicofol, and those working in fields treated with dicofol, may be exposed. People that live in the vicinity of agricultural application sites may be exposed. Exposures to the general public may occur through consumption of treated produce.

Dicofol passed the human 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**

- **Case control study**

- **Ecologic study**
  - Childhood lymphoma and acute lymphoblastic leukemia in California and neighborhood pesticide use: Reynolds *et al.* (2005b)

**Animal carcinogenicity data**

- **Long-term diet studies in mice**
  - Male and female B6C3F1 mice (78 week treatment period + 14-15 weeks on control diet): NCI (1978)

- **Long-term diet studies in rats**
  - Male and female Osborne-Mendel rats (78 week treatment period + 34 weeks on control diet): NCI (1978)

**Other relevant data**

- **Genotoxicity**
• **Hormonal Effects**
  - Inhibition of adrenocorticotropin hormone (ACTH) stimulated cortisol release: U.S. EPA (1998, pp. v, 13)

• **Mechanistic studies**
  - Inhibition of gap junction intercellular communication: Flodström et al. (1990)
  - Altered hepatic foci: Flodström et al. (1990)

• **Structure activity considerations**
  - Structurally similar to other organochlorine pesticides, including:
    - The following Proposition 65 carcinogens: lindane, dieldrin, chlordane, heptachlor, aldrin, chlordecone (kepone), and toxaphene: U.S. EPA (1998, p. 2)

**Reviews**

- IARC (1983)

**References**


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1 See material prepared for this chemical, also in this CIC consultation package
2 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.

