insecticides and with alkaline compounds. Should not be mixed with wetting agents or adhesives. **Principal tradename** 'Euparen' (Bayer). **Mixtures** [*dichlofluanid* +] oxadixyl; copper oxychloride; cymoxanil; tebuconazole.

ANALYSIS

Product analysis by hplc (*CIPAC Handbook,* 1985, **1C,** 2083) or by reaction with sodium methoxide and, ultimately, titration of the chloride (*ibid.,* 1983, **1B,** 1774). **Residues** determined by glc (*Man. Pestic. Residue Anal.,* 1987, **I**; R. Brennecke, *Pflanzenschutz-Nachr. Bayer* (*Engl. Ed.*), 1988, **41,** 137; 1989, **42,** 223; A. Ambrus *et al., J. Assoc. Off. Anal. Chem.,*1981, **64,** 733). Details of methods available from Bayer AG.

MAMMALIAN TOXICOLOGY

Reviews *Pesticide residues in food - 1983.* FAO Plant Production and Protection Paper 56, 1984. *Pesticide residues in food: 1983 evaluations.* FAO Plant Production and Protection Paper 61, 1985. **Acute oral** LD_{50} for rats > 5000 mg/kg.
Skin and eye Acute percutaneous LD_{50} for rats > 5000 mg/kg. Slight skin irritant; moderate eye irritant (rabbits). **Inhalation** LC_{50} (4 h) for rats *c.* 1.2 mg/l air (dust), > 0.3 mg/l (aerosol). **NOEL** (2 y) for rats < 180 mg/kg diet; (2 y) for mice < 200 ppm (threshold value); (1 y) for dogs 1.25 mg/kg b.w. **ADI** (JMPR) 0.3 mg/kg b.w. [1983]. **Toxicity class** WHO Table 5; EPA III.

ECOTOXICOLOGY

Birds Acute oral LD_{50} for Japanese quail > 5000 mg/kg. **Fish** LC_{50} (96 h) for rainbow trout 0.01, golden orfe 0.12, bluegill 0.03 mg/l. **Bees** Not toxic to bees.
Daphnia EC_{50} (48 h) > 1.8 mg/l (90% pre-mix).

ENVIRONMENTAL FATE

Animals In rats, following oral administration, dichlofluanid is rapidly absorbed and excreted, mainly in the urine, with a small proportion in the faeces and via respiration. There is no accumulation in organs and tissues. Dichlofluanid is metabolised to dimethylsulfanilide which is further hydroxylated and/or demethylated. **Plants** In plants, dichlofluanid is metabolised to dimethylsulfanilide which is further demethylated and/or hydroxylated and conjugated. **Soil and water** Due to its instability in soil, dichlofluanid is not leached into deeper soil layers. The main metabolite (dimethylsulfanilide) is further degraded and, according to parent and aged leaching studies, is unlikely to leach into deeper soil layers.