

PCDDs are in progress. The carcinogenic potentials of PCDFs have not been studied.

2,3,7,8-TCDD is teratogenic in mice and hamsters. The threshold teratogenic dose in mice was estimated to be 0.1 mcg per day (Smith et al, 1976). 2,3,7,8-TCDD has been shown to be fetotoxic in a wide variety of species, including primates. HCDD was teratogenic in rats at a dose of 100 mcg/kg per day (IARC, 1977) There is as yet no data on the fetotoxic potentials of PCDFs in animals.

The toxic effects of 2,3,7,8-TCDD in man are summarized in Table 7. The toxic effects most consistently observed in occupational studies are chloracne, liver dysfunction, neuropsychiatric disturbances, and abnormalities in porphyrin metabolism. Table 8 summarizes the findings of the morbidity studies of workers exposed to 2,3,7,8-TCDD to date. The few follow-up studies which have been done show resolution of gross liver dysfunction and porphyrin abnormalities following removal from exposure. (Pazderova-Vijlupkova et al, 1981; Suskind, 1984).

Several of the occupational exposures occurred as the result of uncontrolled exothermic reactions during the production of trichlorophenol. A similar process accident at Seveso, Italy in 1976 resulted in widespread community exposure to 2,3,7,8-TCDD. Health effects included chloracne, primarily in children, and peripheral neuropathy in a small percent of those exposed (Pocchiari et al, 1979).

The epidemiologic studies on the carcinogenicity of TCDD are summarized in Table 9. While individual occupational mortality studies reveal no excess of cancer, the pooled data suggest an excess of soft tissue sarcoma (Honchar and Halperin, 1981).