[P-13]

13 Weeks Repeated-Dose Toxicity Studies 1,3-dichloro-2-propanol in Rats

Jae Ho Oh, Dong Hwan Shin, Sheen Hee Kim, Myung Sil Hwang, Chul Joo Lim, Young Na Yum, Ki-Hwa Yang and Dae Hyun Cho

Department of General Toxicology, National Institute of Toxicological Research, 5 Nokbun-dong, Eunpyung-ku, Seoul, 122-704, Korea

1,3-Dichloro-2-propanol(1,3-DCP), together with 3-monochloro-propane -1,2-diol(3-MCPD), is a well-known contaminant of acid-hydrolysed vegetable protein. 1,3-DCP has also been found to occur in a range of other foods and ingredients, most notable in soy sauce. The objective of the study was to determine the toxicity of the 1,3-DCP in the rat following oral administration for 13 weeks. Groups of 10 SD rats of each sex were given 0, 15, 30, 60 mg/kg bw/day 1,3-DCP by gavage 13×5 days over a period of 13 weeks. There were no treatment related clinical signs. There was no effect of treatment on body weight, body weight gain. There was no effect of treatment on the clinical chemistry parameters measured. There were decreases in the group mean red blood cell count, hemoglobin concentration, packed cell volume of treated groups. The histopathological changes that could be related to treatment were not observed in treated groups. In conclusion, the principal findings of toxicological importance were decrease of the function of hematopoietic organs. The no-toxic dose for these toxicological importances was considered to be 15 mg/kg bw/day for male rats and to be below 15 mg/kgbw/day for female rats under this conditions.