

**[P-48]****Carcinogenicity Evaluation of Diisodecyl Phthalate (DIDP),  
a Plasticizer, in Rats**

Wan-Seob Cho, Beom Seok Han, Ki Taek Nam, Ki Dae Park,  
Dong Deuk Jang, and Ki Hwa Yang  
*Division of General Toxicology , National Institute of  
Toxicological Research, KOREA*

Diisodecyl phthalate (DIDP) which has high physical flexibility, various colors, low viscosity, high stability is used as coating material in ballon, vinyl ink, tent, textile, home and cars interior design and electric cable. In rodents, DIDP is suspected to be a peroxisome proliferator, a nongenotoxic carcinogen. In this study, we performed the carcinogenicity test of DIDP. F344 rats/sex (n=416) were fed DIDP in diet at the levels of 0, 0.04, 0.2, and 0.8% (w/w) for 104 weeks. Clinical signs, body and organ weights, food and water consumption were measured and checked regularly. After treatment for 104 weeks, the animals were sacrificed and histopathological examinations were performed.

Survival rates until 104 weeks were markedly decreased at high (0.8%) dose group than control group. Body weights of high dose group were significantly decreased compared to control group. Relative organ weights of liver, kidney and spleen of DIDP treated group were dose-dependently increased compared to control group. In histopathological examination, mononuclear cell leukemia(MCL) incidences at the high dose level were significantly increased compared to control level. Liver, which is suspected as target organ of DIDP, is not significantly increased in tumor incidence within doses.

Although these data indicate that development of MCL can be influenced by DIDP treatment, literature reviews show that MCL is common finding in aging F344 rats. So,

we need further studies about MCL incidences on DIDP treatment with other species.

**Key words** : Diisodecyl phthalate (DIDP), carcinogenicity study, mononuclear cell leukemia