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제 목	Acute oral toxicity of Bisphenol A Di Glycidyl Ether in male Sprague-Dawley rats				
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<p>Bisphenol A Di Glycidyl Ether (BADGE) is the major component in commercial liquid epoxy resins, which are manufactured by co-reacting bisphenol A with epichlorohydrin. This paper presents the results of an investigation into the acute toxicity of BADGE.</p> <p>BADGE was administered by a gastric lavage to 8-week old SPF Sprague-Dawley rats in a single dose of 0(negative control), 37(BPA*), 0.37(DES*), 1000(G1), 2000(G2), 4000(G3), and 8000(G4) mg/kg/day BADGE. Each treatment group consisted of 7 rats. The general status and weight was observed for 14 days, and the rats were anesthetized by ether at 14 days, then morphologic changes, organs weight, sperm count and motility, and hormone level was measured.</p> <p>One of the G4 rats died on the 3rd day after BADGE was administered. All of the G1, G2, G3, and G4 rats except for the control groups had diarrhea on the 1st day. The G1, G2, and G3 rats observed a soiled perineal region and soft stools with diarrhea until 3rd day. The G4 rats had diarrhea for two days followed by emaciation, soiled fur, a soiled perineal region, staining around the mouth and moribund for three to eight days. Weight changes were observed after the 1st day in the G2, G3, and G4 rats and after the 7th day in all the treatment groups compared with the control groups. The weight of the prostate was significantly lower in the G4 rats, and the liver weight was lower in all the treatment groups compared with the control. The relative weight of the prostate and liver tend to decrease compared with the control. No pathological changes were observed in the brain, liver, thyroid, heart, spleen, kidney, lung and prostate. the number of spermatid in testes was decreased in all treatment groups compare to the control. The sperm motility tended to decrease according to concentration, but sperm count was no differences in all treatment groups. Also, Estrogen level and testosterone level were not observed significant difference between control and treatment groups.</p> <p>These results suggest that BADGE induces reproductive toxicity at 1000 mg/kg/day.</p> <p>* positive control</p>					