ABSTRACT

Currently the use of benzene have great benefits, particularly in the manufacture of paint. However, the concentration of benzene in excess of the threshold value standard required will deliver the impact bad for health workers at the Solvent Base, PT. Tunggal Djaja Indah.

Of the 24 workers there were 12 workers (50%) people experience dizziness while working, 6 workers (25%) feel easy drowsiness while working, 3 workers (16.67%) feel shortness of breath and 1 (4.17%) workers feel dizziness while working. This proves that workers exposed to benzene and experiencing short term effects due to exposure to benzene.

The assessment indicates that the exposure of the worker at the Base with the Solvent concentration (C) benzene in excess of NAB, average body weight (BW) workers 60.7 kg, inhalation rate average 0.62 m3/hour who work for 7 hours/day, 5 days work and in 1 year with the average exposure duration has average Intake 0.03080759 mg/kg/day. This Intake values will be multiplied by the value of the CSF will produce value the characteristics of health risk.

The risk characteristics due to exposure to benzene in 19 workers at the Solvent Base are at risk because the value of the carcinogen effect occurred on ECR > E-4, while 5 other people wrote in the Packaging has not been risky to be effects of carcinogens. Smoking and exercise will affect the risk characteristics of the workers. On estimation of characteristics of the risks of smoking status, gained 1 workers will change health risk levels of risky yet become risky. Whereas, in the estimation of risk characteristics with status symbol, obtained four workers with less sports estimated status will increase the risk of his health becomes at risk.

Keyword: benzene, exposure assessment, risk characteristic