

Aberrations of Styrene Exposed Workers

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- Abstract -

We analyzed styrene concentrations in air and in blood, mandelic acid in urine, and chromosome aberrations in peripheral lymphocytes of twenty one styrene-exposed workers in two reinforced plastic factories. In addition, in vitro testing for chromosome aberration was carried out.

The dose-dependent clastogenicity of styrene was confirmed in the cultured Chinese hamster lung cell(CHL) with metabolic activation.

The environmental styrene concentrations and urinary mandelic acid levels of analyzed subjects were different in two plants examined, but the exposure levels in most workers examined were lower than the permissible exposure levels. Chromosome aberrations of the styrene exposed workers showed no increase in the percentage of aberrant cells as compared with the control group.

No correlation was found between the exposure levels and the frequencies of chromosome aberrations in workers.