

1 SUMMARY =====

1.1 Objective

The mutagenicity of WHOLE SMOKE TOTAL PARTICULATE MATTER (TPM) of test cigarette SNOOPY-1p puffed with various volumes was determined in the plate incorporation assay basically according to Ames et al. (1975). Salmonella typhimurium strains TA98 and TA100 were used to detect frameshift mutagens and mutagens causing base-pair substitution respectively. This was the 1st plate incorporation mutagenicity assay with TPM as test substance instead of whole smoke condensate performed at INBIFO.

1.2 Test Cigarette

The cigarette SNOOPY-1p is a filter cigarette belonging to the FTR project "SNOOPY".

1.3 Experimental

The study was performed in 2 independent substudies. The tester strains Salmonella typhimurium TA98 and TA100 were checked and found to be in accordance with the requested characteristics. A homogenate (S9 protein) from Arochlor 1254-induced rat liver was used for metabolic promutagen activation of TPM. Mutation events were detected in tester strain bacteria reverted from histidine auxotrophy to prototrophy by growth on histidine-deficient agar plates.

Whole smoke TPM was prepared from cigarettes smoked with the puff volumes 5.0, 8.8, 17.5, 35.0 and 70.0 milliliters per puff. The puff frequency of 1 puff per minute and the puff duration of 2 seconds were in accordance with standard methods. This was

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