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CROTONALDEHYDE: A CARCINOGENIC AND MUTAGENIC AIR, WATER AND FOOD POLLUTANT

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SUMMARY

Crotonaldehyde is mutagenic and carcinogenic and it is ubiquitous in our environment. The data base does, however, not allow an assessment of the carcinogenic risk. We have developed a sensitive ^{32}P-postlabelling technique which allows the detection of specific DNA-adducts in animal tissues as markers for initiation of cancer cells. Adducts were found in several organs of F 344 rats after gavage and persisted to a certain extent. The determination of adduct levels in animal tissues after different exposure or even in human tissues can therefore be considered as an effect monitoring and would certainly improve the risk assessment.

Key words: crotonaldehyde, environment, carcinogenicity, ^{32}P-postlabelling, risk assessment

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