

MEETING ABSTRACTS

GENOTOXICITY/MUTAGENICITY TESTING OF SELECTED PRESERVATIVES

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Three preservatives used as ingredients in cosmetics and other consumer products (triclosan, triclocarban and resorcinol) were evaluated for their genotoxic/mutagenic potential by means of a set of *in vitro* alternative methods, namely Ames Test (MPF Test, Xenometrix, OECD TG 471) with strains TA 98, TA 100, TA 1535 and TA 1537, Comet assay on HaCat cell line (non-tumor human keratinocytes) and Mammalian chromosome aberration test (OECD TG 473) using human peripheral lymphocytes. In the chromosome aberration test all three chemicals were positive in the highest tested concentrations. Similarly, in the Comet assay the percentage of DNA in tail was significantly increased in the highest concentrations. Moreover, the genotoxic effects were clearly dependent on the increasing concentration and duration of exposure. The Ames Test revealed positivity only for resorcinol using strain TA 1537, detecting frameshift mutations. The positive results were recorded for extremely high concentrations which under foreseeable conditions could not be present in the human body, however, the results justify the need to regulate and limit the use of these preservatives in final products.

Supported by ERDF/ESF project "International competitiveness of NIPH in research, development and education in alternative toxicological methods" (No. CZ.02.1.01/0.0/0.0/16_019/0000860).

Keywords: *genotoxicity/mutagenicity; preservatives; chromosome aberrations; Ames Test; Comet assay*

References

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