TRIS(AZIRIDINYL)-*para*-BENZOQUINONE (TRIAZIQUONE) (Group 3)

A. Evidence for carcinogenicity to humans (*inadequate*)

No epidemiological study of triaziquone as a single agent was available to the Working Group. Occasional case reports of exposure to triaziquone, especially in the presence of concurrent therapy with other putative carcinogens, such as ionizing radiation, alkylating agents and other potent oncotherapeutic drugs, do not constitute evidence of carcinogenesis[1].

B. Evidence for carcinogenicity to animals (*limited*)

Triaziquone produced a small number of different types of malignant tumours in rats after repeated intravenous injections or after repeated intravenous injections followed by repeated intraperitoneal injections[1].

C. Other relevant data

Triaziquone is an alkylating agent[2]. No data were available on its genetic and related effects in humans.

Triaziquone induced dominant lethal mutations, heritable translocations, chromosomal aberrations and micronuclei in bone-marrow cells of mice and chromosomal aberrations in oocytes of mice and hamsters treated *in vivo*. In human cells *in vitro*, it induced chromosomal aberrations and sister chromatid exchanges. In Chinese hamster cells *in vitro*, triaziquone induced chromosomal aberrations, micronuclei and sister chromatid exchanges; it induced unscheduled DNA synthesis in mouse testicular cells. It induced aneuploidy, chromosomal aberrations and sex-linked recessive lethal mutations in *Drosophila*, mutation in plant cells, gene conversion in yeast and mutation and DNA damage in bacteria[2].

References

[1]*IARC Monographs*, *9*, 67-73, 1975

[2]*IARC Monographs*, *Suppl. 6*, 545-548, 1987