

APPENDIX 1

SUMMARY TABLES OF GENETIC AND RELATED EFFECTS

Summary table of genetic and related effects of chlorinated drinking-water

Nonmammalian systems														Mammalian systems																			
Prokaryotes		Lower eukaryotes				Plants				Insects				In vitro							In vivo												
D	G	D	R	G	A	D	G	C	R	G	C	A	Animal cells							Human cells							Animals					Humans	
													D	G	S	M	C	A	T	I	D	G	S	M	C	A	T	I	D	G	S	M	C
Surface water, chlorinated, not concentrated																																	
-														- ¹																			
Surface water, chlorinated, concentrated																																	
+														- ¹ + ¹ + ¹ + ¹																			
Ground and spring water, chlorinated, concentrated																																	
+														+ ¹ - ¹																			
Surface water, chlorinated and either chlorine dioxide or ozone treated, concentrated																																	
+																																	

A, aneuploidy; C, chromosomal aberrations; D, DNA damage; DL, dominant lethal mutation; G, gene mutation; I, inhibition of intercellular communication; M, micronuclei; R, mitotic recombination and gene conversion; S, sister chromatid exchange; T, cell transformation

In completing the tables, the following symbols indicate the consensus of the Working Group with regard to the results for each endpoint:

- + considered to be positive for the specific endpoint and level of biological complexity
- +¹ considered to be positive, but only one valid study was available to the Working Group
- considered to be negative
- ¹ considered to be negative, but only one valid study was available to the Working Group
- ? considered to be equivocal or inconclusive (e.g., there were contradictory results from different laboratories; there were confounding exposures; the results were equivocal)

Summary table of genetic and related effects of chloroethane

Nonmammalian systems													Mammalian systems																												
Prokaryotes			Lower eukaryotes				Plants			Insects			In vitro						In vivo																						
													Animal cells						Human cells						Animals			Humans													
D	G		D	R	G	A	D	G	C	R	G	C	A	D	G	S	M	C	A	T	I	D	G	S	M	C	A	T	I	D	G	S	M	C	DL	A	D	S	M	C	A
+ ¹													- ¹																												

A, aneuploidy; C, chromosomal aberrations; D, DNA damage; DL, dominant lethal mutation; G, gene mutation; I, inhibition of intercellular communication; M, micronuclei; R, mitotic recombination and gene conversion; S, sister chromatid exchange; T, cell transformation

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