APPENDIX 1

1

SUMMARY TABLES OF GENETIC AND RELATED EFFECTS

Non-mammalian systems Pro- karyotes Lower eukaryotes Plants Insects													Ma	mma	lian s	ystei	ms																				-			
Pro- karyotes		Lov euk	wer aryc	otes		Pla	nts		Ins	ects			In v	itro															In	vivo										
			***										Ani	mal	cells						Hu	nan	cells						Ап	imal						Hu	mans			
DG		D	R	G	A	D	G	С	R	G	С	A	D	G	S	М	С	A	Т	I	D	G	S	М	С	A	Т	1	D	G	S	М	С	DL	A	D	s	М	С	A
_1 ?			+	+	+'					_1			_'	+'	+'		- ¹		+'	+'		_'			27.11				+	- ¹	_ ¹	+	^l	- ¹						

Summary table of genetic and related effects of trichloroethylene without mutagenic stabilizers

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 table, the following symbols indicate the consensus of the Working Group with regard to the results for each end-point:

+ considered to be positive for the specific end-point and level of biological complexity

- +' considered to be positive, but only one valid study was available to the Working Group
- considered to be negative

- considered to be negative, but only one valid study was available to the Working Group

Non-mam	mal	ian s	yster	ns								M	amm	alian	syste	ms														<u> </u>						-			
Pro- karyotes	L eı	owei ikary	/otes		PI	ants		In	sects			In	vitro															In	vivo										
												Ar	imal	cells						Hu	nan o	cells						Ar	nimal						Hu	mans	;		
DG	D	R	C	A	D	G	С	R	G	С	A	D	G	S	М	С	A	Т	1	D	G	S	М	С	A	т	I	D	G	S	М	C	DL	. A	D	s	м	С	А
-' +		+	+	+		+'						+		_'		_1		+				?'						_'			+	_	<u></u>	<u> </u>					

Summary table of genetic and related effects of trichloroethylene containing mutagenic stabilizers, or of uncertain purity

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 table, the following symbols indicate the consensus of the Working Group with regard to the results for each end-point:

- + considered to be positive for the specific end-point and level of biological complexity
- +' considered to be positive, but only one valid study was available to the Working Group
- considered to be negative
- -' considered to be negative, but only one valid study was available to the Working Group

Non-mami	mali	an sy	stems	5								Ma	mma	lian	syste	ms																							
Pro- karyotes eukaryotes Plants Insects I											Inv	vitro															In	vivo											
												Ani	imal	cells						Hu	nan (cells			-			Ar	nimal						Hu	mans			
DG	D	R	G	А	D	G	С	R	G	С	A	D	G	S	М	С	A	Т	I	D	G	s	М	С	A	Т	I	D	G	S	М	С	DL	A	D	S	М	С	А
		?	-	?'		+1	?'		_'			-	_ 1	~'		-		?																		_'		1	

Summary table of genetic and related effects of tetrachloroethylene

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 table, the following symbols indicate the consensus of the Working Group with regard to the results for each end-point:

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- considered to be negative

-' considered to be negative, but only one valid study was available to the Working Group

Non-mam	mali	an sy	stem	5								M	amma	alian	syste	ms															·	······							. <u>.</u>
Pro- karyotes	La eu	ower karyo	otes	·	Pla	ints		Ins	sects			In	vitro												_			In	vivo								<u> </u>		<u>.</u>
												An	imal	cells						Hu	man (cells						Ал	imal						Hu	mans			
DG		R	G	A	D	G	C	R	G	С	A	D	G	S	М	С	A	Т	I	D	G	S	М	С	A	Т	I	D	G	S	М	С	DL	A	D	s	М	С	
-' +												-1	+'	+		+'		+'							······			+					_1						

Summary table of genetic and related effects of 1,2,3-trichloropropane

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 table, the following symbols indicate the consensus of the Working Group with regard to the results for each end-point:

+ considered to be positive for the specific end-point and level of biological complexity

 $+^{i}$ considered to be positive, but only one valid study was available to the Working Group

considered to be negative

-' considered to be negative, but only one valid study was available to the Working Group

							Ma	mma	alian	syste	ms																							
Plan	its		Ins	sects			In v	vitro															In	vivo										
							Ani	imal	cells						Hu	man	cells						An	imal						Hu	mans	;		
D	G	С	R	G	С	A	D	G	s	М	С	A	т	I	D	G	s	м	С	A	Т	I	D	G	S	М	С	DL	A	D	S	М	С	A
				+'			_			+	+'	+		_1	-'		?'	+		+			?			+			+					

Summary table of genetic and related effects of chloral hydrate

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 table, the following symbols indicate the consensus of the Working Group with regard to the results for each end-point:

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- +' considered to be positive, but only one valid study was available to the Working Group
- considered to be negative ----

Non-mammalian systems

Lower

eukaryotes

DRGA

? _'

+

Pro-

karyotes

DG

?

considered to be negative, but only one valid study was available to the Working Group _'

Non-mam	ma	lian	syste	ems									М	amm	alian	syste	ms	,									•													
Pro- karyotes	L e	Lowe	r yote	s		Pla	nts		Ins	sects			In	vitro															In	vivo				· ····,						
	_												A	umal	cells						Hu	nan	cells						A	nimal						Hu	mans			
DG			2	G	A	D	G	С	R	G	С	A	D	G	S	М	С	A	T	I	D	G	s	М	С	A	Т	I	D	G	s	М	С	DL	Α	D	S	М	С	A
? ?													-'								_1								?											

Summary table of genetic and related effects of dichloroacetic acid

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 table, the following symbols indicate the consensus of the Working Group with regard to the results for each end-point:

- + considered to be positive for the specific end-point and level of biological complexity
- +' considered to be positive, but only one valid study was available to the Working Group
- considered to be negative
- -' considered to be negative, but only one valid study was available to the Working Group

Non-mam	ıma	alia	ın sy	stem	s								Ma	mm	alian	syste	ms																							
Pro- karyotes		Lo [.] euk	wer (ary)	otes		Pla	nts		Ins	ects			Inv	vitro															In	vivo										
													An	imal	cells						Hu	man o	cells						Ar	nimal						Hu	iman	s		
DG		D	R	G	A	D	G	С	R	G	С	A	D	G	S	М	С	A	Т	1	D	G	s	М	С	A	Т	I	D	G	s	М	С	DI	. A	D	s	М	С	А
	Γ						+'						_'							+'	_'				_'				?			?	+'							

Summary table of genetic and related effects of trichloroacetic acid

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 table, the following symbols indicate the consensus of the Working Group with regard to the results for each end-point:

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+' 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

Non-mam	malian systems			Mammalian systems			
Pro- karyotes	Lower eukaryotes	Plants	Insects	In vitro		In vivo	
				Animal cells	Human cells	Animal	Humans
DG	DRGA	DGC	RGCA	DGSMCATI	DGSMCATI	D G S M C DL A	DSMCA
+'			+' +'	+ ¹ + ¹ _ ¹			

Summary table of genetic and related effects of 1-chloro-2-methylpropene

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 table, the following symbols indicate the consensus of the Working Group with regard to the results for each end-point:

- + considered to be positive for the specific end-point and level of biological complexity
- +' considered to be positive, but only one valid study was available to the Working Group
- considered to be negative
- -' considered to be negative, but only one valid study was available to the Working Group

Non-mam	mali	an sy	stem	s								Ма	umma	alian	syste	ms																								
Pro- karyotes	Lo eu	ower karyo	otes		Pla	nts		Ins	ects			In	vitro															L	n vivo	>										
												An	imal	cells						Hu	man	cells						A	nima	u						Н	uma	ns		
DG	D	R	G	A	D	G	С	R	G	С	A	D	G	s	М	С	A	Т	I	D	G	s	М	С	A	T	I	Г) G	1	s	М	С	D	JL A	D	s	M	C	A
+								+1					+'	+'		+'																_'								

Summary table of genetic and related effects of 3-chloro-2-methylpropene

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 table, the following symbols indicate the consensus of the Working Group with regard to the results for each end-point:

+ considered to be positive for the specific end-point and level of biological complexity

+' considered to be positive, but only one valid study was available to the Working Group

- considered to be negative

-' considered to be negative, but only one valid study was available to the Working Group

Summary table of genetic and related effects of acrolein

Non-mami	on-mammalian systems 													mma	ulian	syste	ms																							
Pro- karyotes	ro- Lower Plants Insects aryotes												Inv	vitro															In	vivo										
	ro- aryotes eukaryotes Plants Insects												Ani	imal	cells						Hu	man	cells						Ar	imal						Hu	man	5		
DG	D)	R	G	A	D	G	С	R	G	С	A	D	G	S	М	С	A	Т	1	D	G	S	М	С	A	Т	I	D	G	S	М	С	DL	. A	D	S	М	С	А
+ +		1		'						+'	'		+	?	?		?		_1		?	+'	+'						_'					_!·					<u></u>	

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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considered to be negative

-' considered to be negative, but only one valid study was available to the Working Group

Non-mami	ma	alia	n sys	tems	;								Ma	mm	alian	syste	ms																							
Pro- karyotes	1	Lov euk	ver aryo	tes		Pla	nts		Ins	ects			In	vitro															In	vivo										
													An	imal	cells						Hu	man	cells						Ar	umal						Hur	mans			
DG)	D	R	G	A	D	G	С	R	G	С	A	D	G	s	М	С	A	Т	I	D	G	s	М	С	A	Т	I	D	G	S	М	С	DL .	A	D	S	М	С	А
+ +										+'	+'		_'																				+'							

Summary table of genetic and related effects of crotonaldehyde

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 table, the following symbols indicate the consensus of the Working Group with regard to the results for each end-point:

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- + considered to be positive, but only one valid study was available to the Working Group
- considered to be negative

-' considered to be negative, but only one valid study was available to the Working Group

Summary table of genetic and related effects of furan

Non-mami	n-mammalian systems 													mma	ปian	syste	ms																							
Pro- karyotes		Lov euk	wer caryc	otes		Pla	ints		Inse	ects			In v	itro															In	vivo										
													Ani	imal	cells						Hu	man	cells						Ал	imal						Hu	mans			
DG		D	R	G	A	D	G	С	R	G	С	А	D	G	S	М	С	A	Т	I	D	G	S	М	С	А	Т	I	D	G	s	М	С	DL	A	D	s	М	С	А
-										_'			_'	+'	+'		+'												-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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- considered to be negative
- -1 considered to be negative, but only one valid study was available to the Working Group

Non-mammalian systems										Ma	mma	lian :	syster	ms																										
Pro- karyotes	Pro- Lower Plants Insects caryotes							In v	In vitro													In vivo																		
												Animal cells								Human cells								Animal							Humans					
DG		D	R	G	A	D	G	С	R	G	С	A	D	G	S	Μ	С	A	Т	I	D	G	S	М	С	A	Т	I	D	G	S	М	С	DL	. A	D	S	м	С	A
										+'	_1			+'	+'		+						+'								_'		_,							

Summary table of genetic and related effects of furfural

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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+¹ considered to be positive, but only one valid study was available to the Working Group

- considered to be negative

.

- considered to be negative, but only one valid study was available to the Working Group

Summary table of genetic and related effects of benzofuran

Non-mam	malian systems			Mammalian systems														
Pro- karyotes	Lower eukaryotes	Plants	Insects	In vitro		In vivo												
				Animal cells	Human cells	Animal	Humans											
DG	DRGA	DGC	RGCA	DGSMCATI	DGSMCATI	DGSMCDLA	DSMCA											
				$+^{i}$ $+^{i}$ $+^{i}$														

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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- considered to be negative
- -' considered to be negative, but only one valid study was available to the Working Group

APPE
NDIX
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Summary table of genetic and related effects of vinyl acetate

Non-mammalian systems									Mar	nma	lian s	ystei	ms																											
Pro- karyotes	o- Lower Plants Insects ryotes								In vitro													In vivo																		
											Animal cells								Human cells							Animal H							Hu	Humans						
DG		D	R	G	A	D	G	С	R	G	С	A	D	G	s	М	С	A	Т	I	D	G	s	м	С	A	Т	I	D	G	S	М	С	DL	A	D	S	М	С	A
+' -													+'		+'				+'		+'		+	+'	+						+'	+'								

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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