APPENDIX 1

SUMMARY TABLES OF GENETIC AND RELATED EFFECTS

Summary table of genetic and related effects of beryllium compounds

	N	onm	amn	naliar	n sys	ten	ns								м	amm	nalia	n sys	stem	5												•••••				 ·						
	1	oka- otes		ower Ikary			1	Plar	nts		In	sects			In	vitro)														//	ı viv	0			 <u></u>						
.		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$															A	.nim	als			 		Hu	ıman	IS																
Compound	D	G	D	R	G	A			G	с	R	G	С	A	D	G	s	м	С	A	Т	I	D	G	s	М	с	A	Т	1	D	C	3 8	5 1	4 (DL	A	D	s	м	с	A
Beryllium chloride	-	-														+1	+1		+ 1				\top		-d		.			<u>. I</u>	╈					 		+	L	L	L	
Beryllium nitrate	+1	-								ĺ							+1		Ŧ																							
Beryllium oxides		" 1													+1		ب				+,																					
Beryllium sulfate	+	-		-1											_1		+1		?		+				+,		2															
A aneunloidy: C chro		0.000																							+.		?							-	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

In completing the tables, 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 + 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 cadmium compounds

	No	onma	mma	lian	syste	ems								Mar	nma	lian	ı syst	ems																									
	1	oka- otes	Lov euk		tes		Plai	nts		Inse	cts			In vi	itro															In	vivo							_					
														Anii	nal	cells	s					Hu	ımar	n cell	ls					An	ima	ls						Hu	זשר	ans			
Compound	D	G	D	R	G	A	D	G	с	R	G	с	A	D	G	s	М	с	A	Т	1	D	G	s	М	C	A	Т	I	D	G	S	M	ı C		DL	А	D	s	N	1 C	;	A
Cadmium acetate														+1		- 1				+		+,				?1		+															
Cadmium chloride	+	?		+	" 1	-					-		+'	+	+	?	+ '	+		+		+		+ ¹	+1	-1				+ '		?	?	+	-	-	+						
Cadmium nitrate	-1	?									I			+1		-1																											
Cadmium oxide		1																																									
Cadmium sulfate	+	?		+ ¹										+ ¹	+'			+						-1																			
Cadmium sulfide														+1						+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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- +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)

	No															alia	n, fis	h ar	id an	iphib	ian s	ystems																.		
				ver aryo	otes		Pla	nts		Ins	ects			In v	vitro														In v	vivo										
														Ani	mal	cell	s	- 		••••••		Hum	an ce	lls					Ani	imal	s					Hu	mar	s		
Compound	D	G	D	R	G	A	D	G	Cª	R	G	с	A	D	G	s	М	С	Aª	Т	I	DC	; s	М	ı c	A	4 T	1	D	G	s	м	С	DL	Aª	D	s	м	С	A
Inorganic mercury										d	L			A.		L		-l				<u> </u>							- <u> </u>				Ľ		<u> </u>	Ļ_			Ľ	
Metallic mercury																																								
Amalgams																																					+1	?ı	-	-
Mercuric chloride	-			? 1	+ 1			+1						+	+1	? 1	¹	+ 1	+1	+1			+1		?	+,													-	?
Mercurous chloride	+1																			,			+		:	+,						+;	?	?	-					
Mercuric acetate																		+1																						
Organomercury																											¹						-							
Methylmercury chloride ^b	+,	-'		1	?	?ı			+'				+,		+		+1	+	+ ¹				+ ¹		+	+			?1		?	+1	?	+	+					
Methylmercury hydroxide									+	_ ·	+ '	?	+	-	_1			+1																?						
Methylmercury acetate ^c	-	-1																														_1								
Methylmercury dicyandiamide									+'																									_1						
Methoxyethyl- mercury chloride									+			-	-	•	, 1										+ ¹	+1														
Bis(ethylmercury)- hydrogen phosphate	_1																																							
Dimethylmercury			+ ¹															. 1																						
Ethylmercury																		+ ¹							+'	+ '														
Ethylmercury chloride									-1								+1									+'													ŗι	?1

Summary table of genetic and related effects of mercury and mercury compounds

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	Non	Proka- Lower Plants Insects In v														lian,	fish	anc	l am	phibi	ian s	ystei	ms																				
		Troka- Lower Plants Insects eukaryotes												In vit	ю													- -			In	vivo											
											Anim	al c	ells						H	uma	n cel	lls			• • • • •			Ar	imai	ls					Н	uma	ins						
Compound	D	G	D	R	G	A	D	G	Cª	R	G	с	A	DC	5	s	м	с	Aª	Т	1	D	G	s	M	1 0	; .	A ^a	Т	I	D	G	s	м	С	DL	A	D	s	М	C	;],	A
Organomercury (contd)											•		•						4		J						~+.			·			. 	1 .					1				
Butylmercury bromide									+1																																		
Phenylmercury														-																											_,		?ı
Phenylmercury chloride																	+1											+ ¹															
Phenylmercury hydroxide								+	+				+1																														
Phenylmercury acetate	?												+1																										+		_1	. 1	?'
Phenylmercury nitrate								+1	+1																																		
Mercury fulminate																																								?1	71	_	_1
Mixture of mercury compounds																																										ı _	
Fungicides																																											
Panogen 5 ^d									+,																																		
Panogen 8 ^e									+۱																																		
Panogen 15 ^f									+																																		
Ceresan ^g											?																																
Agrimax M ^h									+																																		
Ceresan M ⁱ											+1																																
Granosan ^j									+																																		
Agallol ^k											-																																

Summary table of genetic and related effects of mercury and mercury compounds (contd)

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	Nor	nmar	nmal	ian sy	rstei	ms							Мат	mali	an, fi	sh ar	nd am	phibian	systen	ns																
	Pro ryot		Low euka	er iryote	s		Plant	\$	Ins	sects			In vii	no												In vi	ivo									
													Anin	nal ce	ells				Hu	man	cells					Anir	nals					Hu	mans			<u> </u>
Compound	D	G	D	R	3	A	DG	Ca	R	G	с	A	DO	G S	M	ı c	Aª	ТІ	D	G	S I	м	C A	a T	I	D	GS	; м	ı C	DL	Aª	D	s	м	с	A
Fungicides (contd) Betoxin ¹ New improved ceresan ^m								+1 +1																					I				 k			
Azo dye Mercury orange		-1																																		
Alimentary sources Mercury-conta- minated fish or seal																										-1			? 1				?		?	?

Summary table of genetic and related effects of mercury and mercury compounds (contd)

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considered to be equivocal or inconclusive (e.g. there were contradictory results from different laboratories; there were confounding exposures; the results were equivocal)

⁴ Including spindle disturbances; ^bMicronuclei in plants, +; ^cSperm head abnormality, mice *in vivo*, -¹; ^d Containing methylmercury diacyandiamide (5 g Hg/L); ^c Containing methylmercury diacyandiamide (6.4 Hg/L); ^f Containing methylmercury diacyandiamide (2.3%); ^g Containing phenylmercury acetate; ^k Containing phenylmercury dinaphthylmethanedisulfonate; ^f Containing ethylmercury-p-toluenesulfanyl-amide; ^f Containing ethylmercury chloride; ^k Containing methoxyethylmercury chloride; ^f Containing ethylmercury halogenide (90%); ^mContaining ethylmercury phosphate