## **CONTENTS**

## ENVIRONMENTAL HEALTH CRITERIA FOR HEXACHLOROBENZENE

PRI	EAMBL	Æ	viii
AB	BREVL	ATIONS	xvii
PRI	EFACE		xviii
1.	SUMMARY AND CONCLUSIONS		
	1.1	Identity, physical and chemical properties, and analytical methods	1
	1.2	Sources of human and environmental exposure	1
	1.3	Environmental transport, distribution and	1
	1.5	transformation	1
	1.4	Environmental levels and human exposure	2
	1.5	Kinetics and metabolism in laboratory	_
	1.0	animals and humans	2
	1.6	Effects on laboratory animals and in vitro tests	3
	1.7		6
	1.8	Effects on other organisms in the	
		laboratory and field	6
	1.9	Evaluation of human health risks and	
		effects on the environment	7
		1.9.1 Health effects	7
		1.9.2 Environmental effects	7
	1.10	Conclusions	8
2.	IDEN	TITY, PHYSICAL AND CHEMICAL	
	PROF	PERTIES, AND ANALYTICAL METHODS	9
	2.1	Identity	9
	2.2		9
	2.3	Analytical methods	10

3.	SOURCES OF HUMAN AND ENVIRONMENTAL EXPOSURE			16	6
	3.1 3.2 3.3	World 1	s, uses and production processes production levels nto the environment	16 18	8
4.			ENTAL TRANSPORT, ON AND TRANSFORMATION	21	1
	4.1 4.2		nmental transport and degradation umulation and biomagnification	21 21	
5.		RONMI SURE	ENTAL LEVELS AND HUMAN	24	4
	5.1	5.1.1 5.1.2 5.1.3	Sediment Biota	24 24 28 28 34 35 40	4 8 8 4 5
	5.2		I population exposure Human tissues and fluids Intake from ambient air Intake from drinking-water Intake from foods Apportionment of intakes Trends in exposure of the general population over time	4° 4° 60 60 60	7 7 0 0 0 1
		5.2.7	Occupational exposure during manufacture, formulation or use	63	3
6.	KINE	TICS A	ND METABOLISM	6	5
	6.1	Aquati	c and terrestrial biota	6:	

7.	EFFECTS ON LABORATORY MAMMALS AND IN VITRO TEST SYSTEMS		70	
	7.1	Single exposure	70	
	7.2	Short-term and subchronic exposure	70	
	7.3	Long-term toxicity and carcinogenicity	76	
	7.4	Mutagenicity and related end-points	81	
	7.5	Reproductive and developmental toxicity	82	
	7.6	Immunotoxicity	86	
8.	EFFE	ECTS ON HUMANS	89	
	8.1	General population exposure	89	
	8.2	Occupational exposure	91	
9.	EFFE	ECTS ON OTHER ORGANISMS IN THE		
	LABORATORY AND FIELD			
	9.1	Short-term exposure	92	
		9.1.1 Aquatic biota	92	
		9.1.2 Terrestrial biota	93	
	9.2	Long-term exposure	94	
		9.2.1 Aquatic biota	94	
		9.2.2 Terrestrial biota	95	
10.		LUATION OF HUMAN HEALTH RISKS		
	AND	EFFECTS ON THE ENVIRONMENT	96	
	10.1	Evaluation of human health risks	96	
		10.1.1 Exposure	96	
		10.1.2 Health effects	96	
		10.1.3 Approaches to risk assessment	101	
		10.1.3.1 Non-neoplastic effects	101	
	40.0	10.1.3.2 Neoplastic effects	102	
	10.2	Evaluation of effects on the environment	103	
11.		OMMENDATIONS FOR PROTECTION OF		
	HIIM	IAN HEAT TH AND THE ENVIRONMENT	105	

## EHC 195: Hexachlorobenzene

12.	12.1	THER RESEARCH Environment Human health	106 106 106
13.		VIOUS EVALUATIONS BY ERNATIONAL BODIES	108
REF	EREN	ICES	109
RÉS	SUMÉ	ET CONCLUSIONS	142
RÉS	SUME	N Y CONCLUSIONES	152