

22

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(: %)

2000	0.9	0.8
2001	0.4	0.3

， 87 65 Phthalate(DEHP/DEP), , PCBs
22 , PCBs
2000 12 2001 12 , , 31
1999-2000 2 1999 (1999-2008)

， 가 1

1 , ,
(vitellogenin) , (EDCs)
28 , 782 25 , 779 가
3 1 가
26 , 1075 23 , 1072 3 1
가 가 3.3-5.0%, 2.3-2.4%
0.4%, 0.3%

4-18%, 3-16%
/mL 가 150 , 3.5μg/mL 541.4μg
11 10μg/mL 39%

(pg-TEQ/g)	0 1.309	0 1.258	0 11()
PCBs (μg/kg)	ND 31.3	ND 9.74	ND 1,600() ND 1,600()

(10μg/mL) 34-50% , 10μg/mL
가

128 μ g/mL 350 μ g/mL 가 3
 가
 35 87 PBBs, DDT,
 65 , PCBs 22
 , PCBs 18 1 2 1

0-1.309pg-TEQ/g, 0-1.258 pg-TEQ/g, PCB
 ND-31.33 μ g/kg, ND-9.74 μ g/kg ,

1 2 () (: μ g/kg)

		2		1		SPEED98*	
PCBs (7)		31.33	9.74	188.8	ND	1,600	13
	HCB	0.20	ND	0.19	1.8	16	ND*
	diphenyl tin	ND	1.3	1.62	ND	-	-
Alkylphenol	t-octylphenol	0.227	2.567	1.5	6.0	30	-
	nonylphenol	1.843	1.896	9.8	4.1	780	-
	n-pentylphenol	ND	0.472	0.7	ND	ND**	-
	n-hexylphenol	0.702	0.056	0.75	ND	ND**	-
Phthalate	DEP	27	ND	18.7	29.4	ND	-
	DEHP	68	33	573.9	301	260	-
DEHA		17	ND	95.5	12.1	ND	-
Benzophenone		17.2	3.8	3.0	1.0	4	-
Dioxin (pg- TEQ/ g)		1.309	1.258	4.053	0.636	11****	-

* 1998

가

1 2

(biomarker)

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