

Table 1 : Results of Initial Health Risk Assessment (FY1997 - 2000)

	CAS Number	Substance	Hazard Assessment of General Toxicity and Reproductive and Developmental Toxicity (Basis for NOAEL)				Exposure Assessment		Margin of Exposure ( MOE )	Assessment Result	IARC Classification
			Route of Exposure	Animal species	Endpoints	NOAEL	Route of Exposure	Estimated Maximum Exposure Level			
1	79-06-1	Acrylamide	Oral	Cat	Transient gait disturbance	0.2 mg/kg/day	Inhalation (ambient) #1	< 0.006 µg/kg/day	> 3,300		2 A
			Inhalation	-	-	-	-	-	-	x	
2	75-07-0	Acetaldehyde	Oral	-	-	-	-	-	-	x	2 B
			Inhalation	Rat	Decreased macrophages in pulmonary lavage fluid, olfactory epithelium degeneration	4.9 mg/m <sup>3</sup>	Inhalation (indoor)	140 µg/m <sup>3</sup>	3.5		
							Inhalation (ambient)	5.5 µg/m <sup>3</sup>	89		
3	62-53-3	Aniline	-	-	-	-	-	-	-	x	3
4	309-00-2	Aldrin	See "Dieldrin"								3
5	78-79-5	Isoprene	-	-	-	-	-	-	-	x	2 B
6	100-41-4	Ethylbenzene	Oral	Rat-Mouse	Cloudy swelling of hepatic cells and renal tubular epithelial cells	97 mg/kg/day	Oral	0.004 µg/kg/day	2,400,000	# 3	2 B
			Inhalation	Rabbit	Decrease in living fetuses	120 mg/m <sup>3</sup>	Inhalation (indoor)	70 µg/m <sup>3</sup>	170		
							Inhalation (ambient)	6.9 µg/m <sup>3</sup>	1,700		
7	106-89-8	Epichlorohydrin	-	-	-	-	-	-	-	x	2 A
8	72-20-8	Endrin	Oral	Dog	Hepatic damage	0.03 mg/kg/day	Oral	< 0.0040 µg/kg/day	> 630		3
			Inhalation	-	-	-	-	-	-	x	
9	1330-20-7	Xylene	Oral	Rat	Reduced body weight gain, increased mortality	180 mg/kg/day	Oral	< 2.0 µg/kg/day	> 9,000		3
			Inhalation	Human	CNS-related subjective symptoms	2.2 mg/m <sup>3</sup>	Inhalation (indoor)	115 µg/m <sup>3</sup>	19		
							Inhalation (ambient)	34 µg/m <sup>3</sup>	65		
10	100-00-5	1-Chloro-4-nitrobenzene	-	-	-	-	-	-	-	x	3
11	123-86-4	Butyl acetate	-	-	-	-	-	-	-	x	-
12	75-56-9	Propylene oxide	Oral	-	-	-	-	-	-	x	2 B
			Inhalation	Rat	Degeneration of nasal epithelial cells	1.3 mg/m <sup>3</sup>	Inhalation (indoor)	-	-	x	
							Inhalation (ambient)	0.15 µg/m <sup>3</sup>	870		
13	75-35-4	1,1-Dichloroethylene	Oral	Rat	Hepatocellular vacuolation, hepatocellular fatty change	0.9 mg/kg/day	Oral	< 0.10 µg/kg/day	> 900		3
			Inhalation	Rat	Hepatocellular vacuolation	1.8 mg/m <sup>3</sup>	Inhalation (indoor)	< 0.05 µg/m <sup>3</sup>	> 3,600		
							Inhalation (ambient)	0.029 µg/m <sup>3</sup>	6,200		
14	542-75-6	1,3-Dichloropropene	Oral	Rat-Mouse	Reduced body weight gain	2.5 mg/kg/day	Oral	< 0.088 µg/kg/day	> 2,800		2 B
			Inhalation	Human	Reduction in sperm counts and percentages of normal sperms	1.1 mg/m <sup>3</sup>	Inhalation (indoor)	-	-	x	
							Inhalation (ambient)	1.7 µg/m <sup>3</sup>	650		
15	95-50-1	o-Dichlorobenzene	Oral	Mouse	Change in the renal tubule	43 mg/kg/day	Oral	< 0.042 µg/kg/day	> 100,000		3
			Inhalation	Rat	Pneumonia, acidophilia	0.02 mg/m <sup>3</sup>	Inhalation (indoor)	< 0.2 µg/m <sup>3</sup>	> 12		
							Inhalation (ambient)	0.12 µg/m <sup>3</sup>	20		
16	106-46-7	p-Dichlorobenzene	Oral	Dog	Increased weight of liver, kidney and thyroids, elevation of ALP, hepatocellular hypertrophy	7.1 mg/kg/day	Oral	3.6 µg/kg/day	200		2 B
			Inhalation	Rat	Increased weight of liver and kidney	7.5 mg/m <sup>3</sup>	Inhalation (indoor)	530 µg/m <sup>3</sup>	1.4		
							Inhalation (ambient)	2.9 µg/m <sup>3</sup>	260		
17	68-12-2	N,N-Dimethylformamide	Oral	-	-	-	-	-	-	x	3
			Inhalation	Human	Headache, dizziness, liver dysfunction	0.52 mg/m <sup>3</sup>	Inhalation (indoor)	-	-	x	

			Inhalation	Human	Headache, dyspepsia, liver dysfunction	0.32 mg/m	Inhalation (ambient)	0.47 µg/m <sup>3</sup>	1,100		
18	74-83-9	Methylbromide	Oral	Rat	Squamous cell hyperplasia of the forestomach	0.14 mg/kg/day	Oral	< 0.20 µg/kg/day	> 70		3
			Inhalation	Rat	Inflammation of nasal mucosa	0.28 mg/m <sup>3</sup>	Inhalation (indoor)	-	-	x	
							Inhalation (ambient)	0.21 µg/m <sup>3</sup>	130		
19	100-42-5	Styrene	Oral	Dog	Increased Heinz bodies	140 mg/kg/day	Oral	< 0.40 µg/kg/day	> 35,000		2 B
			Inhalation	Human	Influence on the neurobehavioral performance tested	2.6 mg/m <sup>3</sup>	Inhalation (indoor)	17 µg/m <sup>3</sup>	150		
							Inhalation (ambient)	1.9 µg/m <sup>3</sup>	1,400		
20	50-29-3	p,p'-D D T	Oral	Human	Liver dysfunction	0.06 mg/kg/day	Oral	0.16 µg/kg/day	380		2 B
			Inhalation	-	-	-	-	-	-	x	
21	60-57-1	Dieldrin	Oral	Human	Effect on 17-hydroxycorticosteroid in urine	0.02 mg/kg/day	Oral	< 0.015 µg/kg/day	> 1,300		3
			Inhalation	-	-	-	-	-	-	x	
22	79-94-7	Tetrabromobisphenol A	-	-	-	-	-	-	-	x	-
23	95-53-4	o-Toluidine	-	-	-	-	-	-	-	x	2 A
24	108-88-3	Toluene	Oral	Rat	Increased weight of kidney and liver in male rats	22 mg/kg/day	Oral	< 0.0024 µg/kg/day	> 920,000		3
			Inhalation	Human	Effect on neurobehavioral function	7.9 mg/m <sup>3</sup>	Inhalation (indoor)	270 µg/m <sup>3</sup>	29		
							Inhalation (ambient)	49 µg/m <sup>3</sup>	160		
25	584-84-9	Toluene diisocyanate	Oral	-	-	-	-	-	-	x	2 B
			Inhalation	Human	Sensitization	0 mg/m <sup>3</sup>	Inhalation (indoor)	-	-	x	
							Inhalation (ambient)	-	-	x	
26	302-01-2	Hydrazine	Oral	-	-	-	-	-	-	x	2 B
			Inhalation	Human	Increased subjective symptoms of having nightmares at night	0 mg/m <sup>3</sup>	Oral # 2	0.024 µg/kg/day	38		
27	92-52-4	Biphenyl	Oral	Rat	Epithelial cell hyperplasia of the renal pelvis	3.8 mg/kg/day	Oral	< 0.40 µg/kg/day	> 950		-
			Inhalation	-	-	-	-	-	-	x	
28	108-95-2	Phenol	Oral	Rat	Congestion of kidney, degeneration of tubule in renal papillae	1.2 mg/kg/day	Oral	4.0 µg/kg/day	30		3
			Inhalation	Human	Irritative symptoms of the upper respiratory tract including cough and sputum, body weight loss	4.5 mg/m <sup>3</sup>	Inhalation (indoor)	-	-	x	
							Inhalation (ambient)	0.60 µg/m <sup>3</sup>	7,500		
29	117-81-7	Di (2-ethylhexyl) phthalate	Oral	Rat	Vacuolation of testicular Sertoli cells	3.7 mg/kg/day	Oral	44 µg/kg/day	8.4		3
			Inhalation	-	-	-	-	-	-	x	
30	84-74-2	Di-n-butyl phthalate	Oral	Rat	Nipple and areola retention in male offspring	50 mg/kg/day	Oral	1.2 µg/kg/day	4,200		-
			Inhalation	-	-	-	-	-	-	x	
31	131-11-3	Dimethylphthalate	-	-	-	-	-	-	-	x	-
32	118-74-1	Hexachlorobenzene	Oral	Rat	Mitochondrial swelling, increased agranular endoplasmic reticulum	0.05 mg/kg/day	Oral	< 0.0040 µg/kg/day	> 1,300		2 B
			Inhalation	-	-	-	-	-	-	x	
33	110-54-3	n-Hexane	Oral	-	-	-	-	-	-	x	-
			Inhalation	Human	Headache , abnormal sensation of limbs	1 mg/m <sup>3</sup>	Inhalation (indoor)	24 µg/m <sup>3</sup>	42		
							Inhalation (ambient)	17 µg/m <sup>3</sup>	59		
34	76-44-8	Heptachlor	Oral	Dog	Hepatocellular swelling and the localization of granules in cells in the liver lobule zones	0.03 mg/kg/day	Oral	< 0.0040 µg/kg/day	> 630		2 B
			Inhalation	-	-	-	-	-	-	x	
35	82-68-8	Pentachloronitrobenzene	Oral	Dog	Cholestatic liver damage	0.75 mg/kg/day	Oral	< 0.080 µg/kg/day	> 940		3
			Inhalation	-	-	-	-	-	-	x	

36	87-86-5	Pentachlorophenol	Oral	Rat	Decrease in the neonatal survival rates and the body weight gain rates	3 mg/kg/day	Oral	< 0.20 µg/kg/day	> 1,500		2 B
			Inhalation	-	-	-	-	-	-	x	
37	50-00-0	Formaldehyde	Oral	Rat	Body weight loss, histologic alteration of gastric epithelium, renal necrosis	15 mg/kg/day	Oral	62 µg/kg/day	24		2 A
			Inhalation	Human	30-minute average value for preventing sensory stimulation (nose and throat irritation) in humans	0.1 mg/m <sup>3</sup>	Inhalation (indoor)	230 µg/m <sup>3</sup>	0.43		
							Inhalation (ambient)	5.5 µg/m <sup>3</sup>	18		
38	108-90-7	Monochlorobenzene	Oral	Rat	Neoplastic nodule in liver	43 mg/kg/day	Oral	< 0.21 µg/kg/day	> 20,000		-
			Inhalation	Rat	Decreased GOT levels, liver and kidney weight increase, adrenocortical lesions	0.71 mg/m <sup>3</sup>	Inhalation (indoor)	0.88 µg/m <sup>3</sup>	81		
							Inhalation (ambient)	0.12 µg/m <sup>3</sup>	590		
39	115-96-8	Phosphoric acid tris (2-chloroethyl) ester	Oral	Rat	Increased kidney and liver weight relative to body weight	16 mg/kg/day	Oral	< 0.21 µg/kg/day	> 7,600		3
			Inhalation	-	-	-	-	-	-	x	

Notes: 1) Estimated maximum exposure levels are, in principle, actually measured maximum levels.

2) Inhalation(indoor): exposure to indoor air through inhalation, inhalation (ambient): exposure to ambient air through inhalation

3) : No further assessment required at this time. : Further data collection required. : Potential candidate for detailed assessment.

Data used

X: Risk characterization impossible at present.

4) #1: Oral exposure level is derived from inhalation exposure data for assessment purpose.

( ) Data not used

#2: Oral exposure NOAEL is derived from inhalation exposure NOAEL for assessment purpose.

5) #3: Treated as reference data because the estimated maximum exposure level is limited to exposure through groundwater.

- No data

6) : Exposure level presented is those to Dieldrin and Aldline combined.

7) - : Indicates that the NOAEL values could not be established, or estimated maximum exposure levels were not obtained.