

Chemicals Listed in *Annual Report on Carcinogens* and NCI/NTP Test Results

Table B-1.—Chemicals Listed in Annual Report on Carcinogens

CAS	No.	Substance name	CAS NO.	Substance name
53-96-3		2-Acetylaminofluorene	2602-46-2	Direct Blue 6
107-13-1		Acrylonitrile	1937-37-7	Direct Black 38
23214 -92-8		Adriamycin	106-89-8	Epichlorohydrin
1402 -68-2		Aflatoxins	50-50-0	Estrogens—conjugated:
82-28-0		l-Amino-2-methylantraquinone		a) Estradiol benzoate
117-79-3		2-Aminoanthraquinone		b) Estradiol monopalmitate
92-67-1		4-Aminobiphenyl	50-28-2	Estrogens—not conjugated:
61-82-5		Am it role		a) Estradiol 17 beta
90-04-0		o-Anisidine	53-16-7	Estrogens—not conjugated:
134-29-2		and o-Anisidine Hydrochloride		b) Estrone (metabolize of Estradiol 17 beta)
140-57-8		Aramite		Estrogens—not conjugated:
7440-38-2		Arsenic	57-63-6	c) Ethinylestradiol
1327 -53-3		and certain arsenic compounds		Estrogens—not conjugated:
1332 -21-4		Asbestos	72-33-3	d) Mestranol
446-86-6		Azathioprine		Ethylene thiourea
71-43-2		Benzene	96-45-7	Ethylene oxide
92-87-5		Benzidine	75-21-8	Formaldehyde
98-07-7		Benzotrichloride	50-00-0	Hematite underground mining
7440 -41-7		Beryllium and certain beryllium compounds	NA	Hexachlorobenzene
494-03-1		N, N-bis (2-chloroethyl) -2-naphthylamine (chlornaphazine)	118-74-1	Hexamethylphosphoramide
542-88-1		Bis (chloromethyl) ether and technical grade chloromethyl methyl ether	680-31-9	Hydrazine &
154-93-8		Bischloroethyl nitro-sourea	302-01-2	Hydrazine Sulfate
55-98-1		1,4-Butanediol dimethy-sulfonate (myleran)	10043-93-2	Hydrazobenzene
7440-43-9		Cadmium and certain cadmium compounds	122-66-7	Iron dextran complex
56-23-5		Carbon tetrachloride	9004 -66-4	Isopropyl alcohol manufacture (strong-acid process)
305-03-3		Chlorambucil	NA	Kepone (Chlordecone)
95-83-0		4-Chloro-o-phenylene-diamine	143-50-0	Lead acetate
13010-47-4		1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea (CCNU)	301-04-2	Lead phosphate
67-66-3		Chloroform	7446-27-7	Lindane (gamma-hexachlorocyclohexane)
7440 -47-3		Chromium and certain chromium compounds	58-89-9	Lindane (beta-hexachlorocyclohexane)
NA		Coke oven emissions	319-85-7	Lindane (Hexachlorocyclohexane)
120-71-8		p-Cresidine	608-73-1	Manufacture of auramine
135-20-6		Cupferron	NA	Melphalan
14901 -08-7		Cycasin	148-82-3	Methoxsalen with ultra-violet A therapy (PUVA)
50-18-0		Cyclophosphamide	NA	Methyl iodide
4342 -03-4		Dacarbazine	74-88-4	2-Methylaziridine (propyleneimine)
50-29-3		DDT	75-55-8	4,4' -Methylenebis (N, N-dimethyl) benzenamine (Michler's base)
117-81-7		Di(2-ethylhexyl)phthalate	101-61-1	4,4' -Methylenebis (2-chloroaniline) (M BOCA)
391-41-7		2,4-Diaminoaniso le sulfate	101-14-4	4,4' -Methylenedianiline and its dihydrochloride
95-80-7		2,4-Diaminotoluene	443-48-1	Met ronidazole
96-12-8		1,2-Dibromo-3-chloropropane	90-94-8	Michler's ketone
106-93-4		1,2-Dibromoethane (EDB)	2385 -85-5	Mirex
91-94-1		3,3' -Dichlorobenzidine	505-60-2	Mustard gas
107-06-2		1,2-Dichloroethane	91-59-8	2-Naphthylamine
1464 -53-5		Diepoxybutane	7440-02-0	Nickel and certain nickel compounds
64-67-5		Diethyl sulfate	139-13-9	Nitritoltriacetic acid
			99-59-2	5-N itro-o-anisidine

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Table B-1.—Chemicals Listed in Annual Report on Carcinogens—Continued

CAS No.	Substance name	CAS No.	Substance name
56-53-1	Diethylstilbestrol (DES)	1836-75-5	Nitrofen
119-90-4	3,3'- Dimethoxybenzidine	55-86-7	Nitrogen mustard
77-78-1	Dimethyl sulfate	79-46-9	2-Nitropropane
60-11-7	4-Dimethylaminoazobenzene	759-73-9	N-N troso-N-ethylurea
119-93-7	3,3' -Dimethylbenzidine	684-93-5	N-Nitroso-N-methylurea
79-44-7	Dimethylcarbamoyl chloride	924-16-3	N-Nitrosodi-n-butylamine
57-14-7	1,l-Dimethylhydrazine	621-64-7	N-Nitrosodi-n-propylamine
123-91-1	1,4-Dioxane	1116-54-7	N-Nitrosodiethanolamine
55-18-5	N-Nit rosodiethylamine	671-16-9	Procarbazine
62-75-9	N-Nit rosodimethylamine	366-70-1	Procarbazine Hydrochloride
156-10-5	p-Nit rosodiphenylami ne	57-83-0	Progesterone
4549-40-0	N-Nit rosomethylvi nylamine	1120 -71-4	1,3-Propane sultone
59-89-2	N-Nit rosomorphol ine	57-57-8	beta-Propiolactone
16543 -55-8	N-Nit rosonornicotine	51-52-5	Propylthiouracil
100-75-4	N-Nit rosopiperidi ne	50-55-5	Reserpine
930-55-2	N-Nit rosopyrrol idine	NA	Rubber industry (certain occupations)
13256 -22-9	N-Nit rososarcosine	81-07-2	Saccharin
68-22-4	Norethisterone	394-59-7	Safrole
434-07-1	Oxymetholone	7446-34-6	Selenium sulfide
	PAHs:	8007 -45-2	Soots, tars, and mineral oils
56-55-3	a) Benz (a) anthracene	1883-66-4	Streptozotocin
205-99-2	b) Benzo (b) fluoranthene	95-06-7	Sulfallate
50-32-2	c) Benzo (a) pyrene	1746-01-6	2,3,7,8-Tetrachlorodi-benzo-p-dioxin (TCDD)
226-36-8	d) Dibenz (a,h) acridine	62-55-5	Thioacetamide
226-36-8	e) Dibenz (a,i) acridine	62-55-5	Thiourea
53-70-3	f) Dibenz (a,h) anthracene	1314 -20-1	Thorium dioxide
194-59-2	g) 7H-Dibenzo (c,g) carbazole	584-84-9	Toluene diisocyanate
189-64-0	h) Dibenzo (a,h) pyrene	95-53-4	o-Toluidine
189-55-9	i) Dibenzo (a,i) pyrene	636-21-5	o-Toluidine Hydrochloride
193-39-5	j) Indeno (1,2,3-cd) pyrene	8001 -35-2	Toxaphene
62-44-2	Phenacetin and analgesic mixtures containing phenacetin	88-06-2	2,4,6-Trichlorophenol
136-40-3	Phenazopyridine hydrochloride	126-72-7	Tris (2,3-dibromopropyl)phospate
57-41-0	Phenytoin and sodium salt of phenytoin	52-24-4	Tris(1-aziridinyl)phosphine sulfide
		51-79-6	Urethane
36355-01-8	Polybrominated biphenyls	75-01-4	Vinyl chloride
1336-36-3	Polychlorinated biphenyls		

SOURCE: U.S. Department of Health and Human Services, Public Health Service, National Toxicology Program, *Fourth Annual Report on Carcinogens*, 1985.

Table B-2.—NCUNTP Test Results

CAS No.	Substance	Test results		Results		Technical report number
		Year	Number positive	Rats M F	Mice M F	
968-81-0	Acetohexamide	1978	neg.	N N	N N	[050]
7008-42-6	Acronycine.	1978	two	PP	II	
9002-18,0	Agar	1982	neg.	N N	N N	[230]
116-06-3	Aldicarb	1979	neg.	N N	N N	[136]
309-00-2	Aldrin	1978	one	E E	P N	[21]
107-05-1	Allyl chloride	1978	equiv.	N N	E E	[73]
57-06-7	Allyl isothiocyanate	1982	one	P E	N N	[234]
2835-39-4	Allyl isovalerate	1983	two	P N	N P	[253]
82-28-O*	l-Amino-2-methy lanthraquinone	1978	three	P P	N P	[111]
119-34-6	4-Amino-2-nitrophenol	1978	one	P E	N N	[94]
17026-81-2	3-Amino-4 -ethoxyacetanilide	1978	one	N N	P N	[1 12]
121-66-4	2-Amino-5-nitrothiazole	1978	one	P N	N N	[53]
6109-97-3	3-Amino-9-ethylcarbazole hydrochloride	1978	four	P P	P P	[93]
11 7-79-3*	2-Aminoanthraquinone.	1978	three	P I	P P	[144]
2432-99-7	11-Aminoundecanoic acid	1982	one	P N	E N	[216]
7177-48-2	Ampicillin trihydrate	NA	equiv.	E N	N N	[318]

KEY: P—phosphate; N—negative; I—inadequate; E—equivocal; NA—not available.
*Indicates listing in *Annual Report on Carcinogens*.

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Table B-2.-NCIINTP Test Results—Continued

CAS No.	Substance	Year	Test results	Results				Technical report number
			Number positive	Rats M F	Mice M F			
101-05-3	Anilazine	1978	neg.	N N	N N		[104]	
142-04-1	Aniline hydrochloride.	1978	two	P P	N N		[1 30]	
134-29-2*	o-Anisidine hydrochloride (2-Methoxyaniline)	1978	four	P P	P P		[89]	
20265-97-8	p-Anisidine hydrochloride	1978	equiv.	E N	N N		[116]	
118-92-3	o-Anthranilic acid	1978	neg.	N N	N N		[36]	
11097-69-1	Aroclor 1254 (polychlorinated biphenyls)	1978	equiv.	E E	/ /		[38]	
12001-29-5	Asbestos —Chrysotile (IR)	1985	one	P N	/ /		[295a]	
12001-29-5	Asbestos —Chrysotile (SR)	1985	neg.	N N	/ /		[295b]	
12001-29-5	Asbestos —Chrysotile (IR) + Dimethyl Hydrazine	1985	inad.	1 1	/ /		[295c]	
12182-73-5	Asbestos, Amosite.	1983	neg.	N ^a N	/ /		[249]	
50-81-7	L-Ascorbic acid.	1983	neg.	N N	N N		[247]	
8003-03-0	Aspirin, Phenacetin, and Caffeine (APC)	1978	equiv.	N E	N N		[671]	
320-67-2	5-Azacytidine	1978	one	I I	I P		[42]	
86-50-0	Azinphosmethyl	1978	equiv.	E N	N N		[691]	
103-33-3	Azobenzene	1979	two	P P	N N		[154]	
71-43-2*	Benzene	1986	four	P P	F P		[289]	
119-53-9	Benzoin	1980	neg.	N N	N N		[204]	
105-11-3	p-Benzoquinone dioxime.	1979	one	N P	N N		[791]	
95-14-7	1,2,3-Benzotriazole	1978	equiv.	E E	N E		[88]	
140-11-4	Benzyl acetate.	1986	two	E N	P P		[250]	
2185-92-4	2-Biphenylamine hydrochloride	1982	one	N N	E P		[233]	
108-60-1	bis(2-Chloro-1-methylethyl) ether	1982	two	/ /	P P		[239]	
		1979	neg.	N N	/ /		[191]	
80-05-7	Bisphenol A.	1982	equiv.	E N	N N		[215]	
106-99-0	1,3-butadiene	1984	two	/ /	P P		[288]	
85-68-7	Butyl benzyl phthalate.	1982	one	I P	N N		[213]	
128-37-0	Butylated hydroxytoluene (BHT)	1979	neg.	N N	N N		[150]	
6459-94-5	C.I. Acid Red 14	1982	neg.	N N	N N		[220]	
1936-15-8	C.i. Acid Orange10	NA	neg.	N N	N N		[211]	
569-61-9	Cl. Basic Red 9 Monohydrochloride.	1986	four	P P	P P		[285]	
2602-46-2'	Cl. Direct Blue6	1978	two	P P	/ /		[108]	
1937-37-7*	Cl. Direct Black38	1978	two	P P	/ /		[108]	
16071-86-6	Cl. Direct Brown 95.	1978	two	I P	I I		[108]	
2475-45-8	Cl, Disperse Blue 1	1986	two	P P	E N		[299]	
2832-40-8	Cl. Disperse Yellow3	1982	two	P N	N P		[224]	
842-07-9	Cl. Solvent Yellow 14	1982	two	P P	N N		[226]	
128-66-5	C.I. Vat Yellow4	1979	one	N N	P N		[134]	
156-62-7	Calcium cyanamide	1979	neg.	N N	N N		[163]	
105-60-2	Caprolactam	1982	neg.	N N	N N		[214]	
133-06-2	Captan	1977	two	N N	N P		[15]	
77-65-6	Carbromal	1979	neg.	N N	N N		[173]	
133-90-4	Chloramben	1977	one	N N	E P		[8]	
57-74-9	Chlordane (technical grade)	1977	two	N N	N P			
143-50-0*	Chlordecone (kepone)	NA	four	P P	P P		[NA]	
115-28-6	Chlorendic acid.	NA	three	P P	P N		[304]	
63449-39-8	Chlorinated paraffins: C23,43Vo chlorine	1986	one	N E	P E		[305]	
63449-39-8	Chlorinated paraffins: C12,600/O chlorine	1986	four	P P	P P		[308]	
56802-99-4	Chlorinated trisodium phosphate	NA	inad.	I I	N N		[294]	
140-49-8	4-(Chloroacetyl) acetanilide	1979	neg.	N N	N N		[177]	
563-47-3	3-Chloro-2-methylproPene	1986	four	P P	P P		[300]	
5131-60-2	4-Chloro-m-phenylenediamine	1978	two	P N	N N		[85]	
95-83-0*	4-Chloro-o-phenylenediamine	1978	four	P P	P P		[63]	
95-79-4	5-Chloro-o-toluidine	1979	two	N N	P P		[187]	
3165-93-3	4-Chloro-o-toluidine hydrochloride.	1979	two	N N	P P		[165]	
61702-44-1	2-Chloro-p-phenylenediamine sulfate	1978	neg.	N N	N N		[113]	
95-74-9	3-Chloro-p-toluidine	1978	neg.	N N	N N		[145]	
106-47-8	p-Chloroaniline	1979	equiv.	E N	E E		[189]	
108-90-7	Chlorobenzene	1985	equiv.	E N	N N		[261]	
510-15-6	Chlorobenzilate	1978	two	E E	P P		[75]	

KEY: P—phosphate, N—negative, I—inadequate, E—equivocal; NA—not available

*Indicates listing in *Annual Report on Carcinogens*

†Tested in hamsters.

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Table B.2.—NCI/NTP Test Results-Continued

CAS No.	Substance	Test results		Results				Technical report number
		Year	Number positive	Rats M	Rats F	Mice M	Mice F	
124-48-1	Chlorodibromomethane	1985	one	N	N	E	P	[282]
107-07-3	2-Chloroethanol (ethylene chlorohydrin)	1985	neg.	N	N	N	N	[1275]
999-81-5	2-Chloroethyltrimethyl ammonium chloride	1979	neg.	N	N	N	N	[158]
67-66-3*	Chloroform	NA	three	P	/	P	P	NA
6959-47-3	2-Chloromethylpyridine hydrochloride	1979	neg.	N	N	N	N	[178]
6959-48-4	3-Chloromethylpyridine hydrochloride	1978	three	P	E	P	P	[95]
76-06-2	Chloropicrin	1978	inad.	I	I	N	N	[65]
1897-45-6	Chlorothalonil	1978	two	P	P	N	N	[41]
113-92-8	Chlorpheniramine maleate	1986	neg.	N	N	N	N	[317]
94-20-2	Chlorpropamide	1978	neg.	N	N	N	N	[45]
87-29-6	Cinnamyl anthranilate	1980	three	P	N	P	P	[196]
1420-04-8	Clonitralid	1978	equiv.	N	E	I	N	[91]
56-72-4	Coumaphos	1979	neg.	N	N	N	N	[96]
102-50-1	m-Cresidine	1978	two	P	P	I	N	~00q
120-71-8*	p-Cresidine	1979	four	P	P	P	P	~42]
135-20-6'	Cupferron	1978	four	P	P	P	P	[100]
21739-91-3	Cytembena	1981	two	P	P	N	N	[207]
69-65-8	D-Mannitol	1982	neg.	N	N	N	N	[236]
5160-02-1	D&CRed NO. 9	1982	one	P	E	N	N	[225]
72-55-9	P,P'-DDE	1978	two	N	N	P	P	[131]
50-29-3	DOT	1978	neg.	N	N	N	N	[131]
1163-19-5	Decabromodiphenyl oxide	1986	two	P	P	E	N	[309]
103-23-1	Di(2-Ethylhexyl) adipate	1982	two	N	N	P	P	[212]
11 7-81-7*	Di(2-Ethylhexyl) phthalate	1982	four	P	P	P	P	[217]
72-56-O	Di(P-Ethylphenyl) dichloroethane	1979	equiv.	N	N	N	E	[156]
131-17-9	Diallyl phthalate	1983	equiv.	/	/	E	E	242]
		1985	equiv.	N	E	/	/	284]
39156-41 -7*	2,4-Diaminoanisole sulfate	1979	four	P	P	P	P	84]
95-80-7"	2,4-Diaminotoluene	1979	three	P	P	N	P	162]
6358-85-6	Diarylanilide Yellow	1978	neg.	N	N	N	N	30]
333-41-5	Diazinon	1979	neg.	N	N	N	N	137]
262-12-4	Dibenzo-p-dioxin	1979	neg.	N	N	N	N	122]
96-12-8*	1,2-Dibromo-3-chloropropane (DBCP)	1978	four	P	P	P	P	[28]
		1982	four	P	P	P	P	[206]
106-93-4*	1,2-Dibromoethane (ethylene dibromide)	1978	four	P	P	P	P	[86]
		1982	four	P	P	P	P	210]
1067-33-0	Dibutyltin diacetate	1979	inad.	N	I	N	N	[183]
609-20-1	2,6-Dichloro-p-phenylenediamine	1982	two	N	N	P	P	[219]
106-46-7	1,4-Dichlorobenzene	NA	three	P	N	P	P	[319]
95-50-1	1,2-Dichlorobenzene (o-dichlorobenzene)	1985	neg.	N	N	N	N	[255]
33857 -26-O	2,7-dichlorodibenzo-p-dioxin (DODD)	1979	equiv.	N	N	E	N	123]
75-43-3	1,1-Dichloroethane	1978	equiv.	N	E	N	E	66]
107-06-2"	1,2-Dichloroethane	1978	four	P	P	P	P	55]
75-09-2	Dichloromethane (methylene chloride)	1986	four	P	P	P	P	306]
78-87-5	1,2-Dichloropropane (propylene dichloride)	1986	two	N	E	P	P	263]
542-75-6	1,3-dichloropropene (Telonell)	1985	three	P	P	I	P	[269]
62-73-7	Dichlorvos	1977	neg.	N	N	N	N	[10]
115-32-2	Dicofol	1978	one	N	N	P	N	[90]
60-57-1	Dieldrin	1978	equiv.	N	N	E	N	[21]
		1978	neg.	N	N	/	/	22]
DIES ELFUEL	Diesel fuel marine	1986	equiv.	I	I	E	E	310a]
DIESELFUEL	JNaval fuel	1986	neg.	/	/	N	N	310b]
101-90-6	Diglycidyl resorcinol ether (DGRE)	1983	four	P	P	P	P	257]
60-51-5	Dimethoate	1977	neg.	N	N	N	N	4]
54150-69-5	2,4-Dimethoxyaniline hydrochloride	1979	neg.	N	N	N	N	[171]
91-93-0	3,3'-Dimethoxybenzidine-4,4'-diisocyanate	1979	two	P	P	N	N	[128]
868-85-9	Dimethyl hydrogen phosphite	1985	one	P	E	P	P	287]
597-25-1	Dimethyl morpholinophos-phosphoramidate	1986	two	P	P	N	N	298]
120-61-6	Dimethyl terephthalate	1979	equiv.	N	N	E	N	

KEY: P—phosphate; N—negative; I—inadequate; E—equivocal; NA—not available.
 *Indicates listing in **Annual Report on Carcinogens**.

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Table B-2.—NCUNTP Test Results—Continued

CAS No.	Substance	Year	Test results	Results				Technical report number
			Number positive	Rats M F	Mice M F			
m3-37-1	Dimethylvinyl chloride	1986	four	P	P	P	P	[316]
121-14-2	2,4-Dinitrotoluene	1978	two	P	P	N	N	[54]
123-91-1	1,4-Dioxane	1978	four	P	P	P	P	[80]
78-34-2	Dioxathion	1978	neg.	N	N	N	N	[125]
142-46-1	2,5-Dithiobiurea	1979	equiv.	N	N	N	E	[132]
15356-70-4	DL-Menthol	1979	neg.	N	N	N	N	[98]
316-42-7	Emetine hydrochloride	1978	inad.	1	1	1	1	[43]
115-29-7	Endosulfan	1978	inad.					[62]
72-20-8	Endrin	1979	neg.	A	:	k	:	[12]
134-72-5	Ephedrine sulfate	1986	neg.	N	N	N	N	[307]
229-66-79-6	Estradiol mustard	1978	two	N	N	P	P	[59]
536-33-4	Ethionamide	1978	neg.	N	N	N	N	[46]
140-88-5	Ethyl acrylate	NA	four	P	P	P	P	[259]
20941-65-5	Ethyl tellurac	1979	equiv.	E	N	E	E	[152]
150-38-9	Ethylenediamine tetraacetic acid (EDTA).	1977	neg.	N	N	N	N	[11]
97-53-0	Eugenol	1983	equiv.	N	N	E	E	[223]
2783-94-0	FD&C Yellow No.6	1981	neg.	N	N	N	N	[208]
55-38-9	Fenthion	1979	equiv.	N	N	E	N	[103]
2164-17-2	Fluometuron	1980	equiv.	N	N	E	N	[195]
140-56-7	Formulated fenaminosulf	1978	neg.	N	N	N	N	[101]
105-87-3	Geranyl acetate	NA	neg.	N	N	N	N	[252]
9,000-30-0	Guar gum	1982	neg.	N	N	N	N	[229]
9,000-01-5	Gum arabic	1982	neg.	N	N	N	N	[227]
68916-39-2	Hamamelis Water (witch hazel)	1984	neg.	N	N	N	N	[286]
33229-34-4	HCBlue2	1985	neg.	N	N	N	N	[293]
2784-94-3	HCBlue 1	1985	three	E	P	P	P	[271]
2871-01-4	HCRed 3.....	1986	equiv.	N	N	E	I	[281]
76-44-8	Heptachlor,	1977	two	N	E	P	P	[9]
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	1980	three	E	P	P	P	[198]
		1980	neg.	/	/	N	N	[202]
67-72-1	Hexachloroethane	1978	two	N	N	P	P	[68]
70-30-4	Hexachlorophene	1978	neg.	N	N	/	/	[40]
122-66-7*	Hydrazobenzene	1978	three	P	P	N	P	[92]
148-24-3	8-Hydroxyquinoline.	1985	neg.	N	N	N	N	[276]
21416-87-5	ICRF-159.	1978	two	N	P	N	P	[78]
75-47-8	Iodoform (triiodomethane).	1978	neg.	N	N	N	N	[110]
3458-22-8	IPD(3,3'-Iminobis-I-propanol dimethanesulfonate (ester)hydrochloride)	1978	equiv.	E	E	E	E	[18]
78-59-1	Isophorone.	1986	one	P	N	E	N	[291]
3778-73-2	Isophosphamide	1977	two	N	P	N	P	[32]
303-43-4	Lasiocarpine	1978	two	P	P	/	/	[39]
19010-66-3	Lead dimethyldithiocarbamate	1979	neg.	N	N	N	N	[151]
58-89-9	Lindane	1977	neg.	N	N	N	N	[14]
434-13-9	Lithocholic acid	1979	neg.	N	N	N	N	[175]
9,000-40-2	Locust bean gum	1982	neg.	N	N	N	N	[221]
1634-78-2	Malaoxon	1979	neg.	N	N	N	N	[135]
121-75-5	Malathion	1978	neg.	N	N	N	N	[24]
		1979	neg.	N	N	/	/	[192]
108-78-1	Melamine	1983	one	P	N	N	N	[245]
72-43-5	Methoxychlor	1978	neg.	N	N	N	N	[35]
80-62-6	Methyl methacrylate	1986	neg.	N	N	N	N	[314]
298-00-0	Methyl parathion	1979	neg.	N	N	N	N	[~:::]
129-15-7	2-Methyl-1-nitroanthraquinone	1978	four	P	P	P	P	
101-61-1.	4,4'-Methylenebis (N,N-dimethyl) benzenamine	1979	three	P	P	E	P	[186]
13552-44-8*	4,4'-Methylenedianiline dihydrochloride	1983	four	P	P	P	P	[248]
3-5-~a-4	Mexacarbate	1978	neg.	N	N	N	N	[147]
90-94-8'	Michler's ketone	1979	four	P	P	P	P	[181]
150-68-5	Monuron	1983	one	P	N	N	N	[266]
1465-25-4	N-(l-naphthyl) ethylenediamine dihydrochloride	1979	neg.	N	N	N	N	[168]

KEY: P—phosphate; N—negative; I—inadewate; E—equivocal; NA—not available
 *Indicates listing in *Annual Report on Carcinogens*.

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Table B-2.—NCI/NTP Test Results—Continued

CAS No.	Substance	Year	Test results	Results				Technical report number
			Number positive	Rats M	Rats F	Mice M	Mice F	
109-69-3	N-Butyl chloride	1986	neg.	N	N	N	N	[312]
86-30-8'	N-Nitrosodiphenylamine	1979	two	P	P	N	N	~64]
101-54-2	N-Phenyl-p-phenylenediamine	1978	neg.	N	N	N	N	[82]
2243-62-1	1,5-Naphthalenediamine	1978	three	N	P	P	P	~43]
139-94-6	Nithiazide	1979	two	N	P	P	E	~46]
99-59-2*	5-Nitro-o-anisidine	1978	three	P	P	E	P	~271]
99-56-9	4-Nitro-o-phenylenediamine	1979	neg.	N	N	N	N	~80]
99-55-8	5-Nitro-o-toluidine	1978	two	N	N	P	P	~071]
1777-84-0	3-Nitro-p-acetophenetide	1979	one	N	N	P	N	~331]
5307-14-2	2-Nitro-p-phenylenediamine	1979	one	N	N	N	P	~631]
602-87-9	5-Nitroacenaphthene	1978	three	P	P	N	P	~18]
619-17-0	4-Nitroanthranilic acid	1978	neg.	N	N	N	N	~09]
94-52-0	5(6)-Nitrobenzimidazole	1979	two	N	N	P	P	~171]
1836-75-5'	Nitrofen	1978	three	E	P	P	P	[26]
		1979	two	N	N	P	P	~84]
88-57-7	1-Nitronaphthalene	1978	neg.	N	N	N	N	[64]
504-88-1	3-Nitropropionic acid	1978	equiv.	E	N	N	N	[52]
156-10-5	p-Nitrosodiphenylamine	1979	two	P	N	P	N	~w]
102-96-5	beta-Nitrostyrene	1979	neg.	N	N	N	N	~70]
1212-29-9	N,N'-Dicyclohexylthiourea	1978	neg.	N	N	N	N	[56]
105-55-5	N,N'-Diethylthiourea	1979	two	P	P	N	N	~491]
139-13-9*	NTA(Nitritotriacetic acid)	1977	four	P	P	P	P	[624]
18662-53-8*	Trisodium nitritotriacetate monohydrate	1977	equiv.	E	E	N	N	[6b]
18682-53-8*	Trisodium nitritotriacetate monohydrate	1977	two	P	P	/	/	[6c]
101-80-4	4,4'-Oxydianiline	1980	four	P	P	P	P	[205]
2058-46-0	Oxytetracycline hydrochloride	NA	equiv.	E	E	N	N	[315]
56-38-2	Parathion	1979	equiv.	E	E	N	N	[70]
76-01-7	Pentachloroethane	1983	two	E	N	P	P	[232]
82-68-8	Pentachloronitrobenzene	1978	neg.	N	N	N	N	[61]
		NA	neg.	/	/	N	N	[325]
136-40-3"	Phenazopyridine hydrochloride	1978	three	P	P	N	P	[991]
3546-10-9	Phenesterin	1978	three	N	P	P	P	[60]
834-28-6	Phenformin hydrochloride	1977	neg.	N	N	N	N	[7]
108-95-2	Phenol	1980	neg.	N	N	N	N	[203]
63-92-3	Phenoxybenzamine hydrochloride	1978	four	P	P	P	P	[72]
103-85-5	l-Phenyl-2-thiourea	1978	neg.	N	N	N	N	~48]
89-25-8	l-Phenyl-3-methyl-5-pyrazolone	1978	neg.	N	N	N	N	~41]
624-18-0	p-Phenylenediamine dihydrochloride	1979	neg.	N	N	N	N	~74]
61-76-7	Phenylephrine hydrochloride	NA	neg.	N	N	N	N	[322]
90-43-7	o-Phenylphenol	1986	neg.	/	/	N	N	[301]
13171-21-6	Phosphamidon	1979	equiv.	E	E	N	N	~6]
13366-73-9	Photodieldrin	1977	neg.	N	N	N	N	~7]
85-44-9	Phthalic anhydride	1979	neg.	N	N	N	N	~5 q]
88-96-0	Phthalimide	1979	neg.	N	N	N	N	~61]
1918-02-1	Picloram	1978	equiv.	N	E	N	N	[231]
51-03-6	Piperonyl butoxide	1979	neg.	N	N	N	N	~20]
120-82-7	Piperonyl sulfoxide	1979	one	N	N	P	N	~24]
1955-45-9	Pivalolactone	1978	two	P	P	N	N	~40]
67774-32-7	Polybrominated biphenyl mixture (Firemaster FF-I)	1983	four	P	P	P	P	[244]
366-70-1.	Procarbazine hydrochloride	1977	four	P	P	P	P	~q]
952-23-8	Proflavin hydrochloride	1977	equiv.	E	N	E	E	[5]
121-79-9	propyl gallate	1982	equiv.	E	N	E	N	[240]
115-07-1	Propylene	1985	neg.	N	N	N	N	[272]
75-56-9	l,2-Propylene oxide	1985	four	P	P	P	P	[2671]
98-96-4	Pyrazinamide	1978	inad.	N	N	N	I	[0481]
58-14-9	Pyrimethamine	1978	inad.	N	N	I	N	[771]
50-55-5"	Reserpine	1982	three	P	N	P	P	~93]
7446-34-6*	Selenium sulfide (twice)	1980	three	P	P	N	P	~94]
		NA	neg.	/	/	N	N	~971]

KEY: P—phosph?te; N—negative; I—inadequate; E—equivocal; NA—not available.

*Indicates listing in Annual Report on Carcinogens.

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Table B-2.—NCI/NTP Test Results—Continued

CAS No.	Substance	Year	Test results	Results		Technical report number
			Number positive	Rats M F	Mice M F	
SELSUN	Selsun	1980	neg.	I I	N N	~991
148-18-5	Sodium diethyldithiocarbamate	1979	neg.	N N	N N	~72]
7772 -99-8	Stannous chloride	1982	equiv.	E N	N N	[231]
100-42-5	Styrene	1979	equiv.	N N	E N	~85]
1596-84-5	Succinic acid 2,2-dimethyl-hydrazide (Daminozide)	1978	one	N P	E N	[83]
95-06-7"	Sulfallate	1978	four	P P	P P	[11 q
127-69-5	Sulfisoxazole.	1979	neg.	N N	N N	~38]
77-79-2	3-Sulfolene	1978	neg.	N N	N N	[102]
80-08-0	4,4'-Sulfonyldianiline (Dapsone)	1977	one	P N	N N	[20]
39300-88-4	Taragum	1982	neg.	N N	N N	[224]
2438-88-2	2,3,5,6-Tetrachloro-4-nitro-anisole	1978	neg.	N N	N N	f114]
1746-01 -6*	2,3,7,8-Tetrachlorodibenzo-p-dioxin	1982	four	P P	P P	[209]
		1982	one	I I	E P	[2014
	2,3,7,8-Tetrachlorodibenzo-p-dioxin + (PDMBA)	1982	inad.	I I	I I	[201b]
72-54-8	Tetrachlorodiphenylethane (TEE)	1978	equiv.	E N	N N	[131]
630-20-6	1,1,1,2-Tetrachloroethane	1983	two	E N	P P	
79-34-5	1,1,2,2-Tetrachloroethane	1978	two	E N	P P	
127-18-4	Tetrachloroethylene	1987	four	P P	P P	[311]
		1977	two	I I	P P	[13]
961-11-5	Tetrachlorvinphos.	1978	three	N P	P P	[33]
97-77-8	Tetraethylthiuram disulfide	1979	neg.	N N	N N	[166]
55566-30-8	Tetrakis (hydroxymethyl) phosphonium sulfate.	NA	neg.	N N	N N	[296]
139-65-1	4,4'-Thiodianiline	1978	four	P P	P P	[47]
789-61-7	beta-Thioguanidine deoxyriboside	1978	one	E P	I I	[57]
13463 -67-7	Titanium dioxide	1979	neg.	N N	N N	[97]
1156 -19-0	Tolazamide	1978	neg.	N N	N N	[51]
64-77-7	Tolbutamide	1977	neg.	N N	N N	[31]
26471 -62-5	2,4-&2,6-Toluene diisocyanate	1986	three	P P	N P	[251]
15481 -70-6	2,6-Toluenediamine dihydro-chloride	1980	neg.	N N	N N	[200]
6369-59-1	2,5-Toluenediamine sulfate	1978	neg.	N N	N N	~26]
636-21-5'	o-Toluidine hydrochloride	1979	four	P P	P P	~53]
8001-35-2"	Toxaphene	1979	two	E E	P P	[371
79-00-5	1,1,2-Trichloroethane	1978	two	N N	P P	[~:]
71-55-6	1,1,1-Trichloroethane (methyl chloroform)	1977	inad.	I I	I I	
79-01-6	Trichloroethylene (without epichlorohydrin)	1976	two	N N	P P	[2]
		NA	two	I N	P P	[243]
		1986	inad.	I I	I I	[273]
75-69-4	Trichlorofluoromethane	1978	inad.	I I	N N	f106]
88-06-2*	2,4,6-Trichlorophenol	1979	three	P N	P P	~55]
1582 -09-8	Trifluralin	1978	one	N N	N P	[34]
137-17-7	2,4,5-Trimethylaniline.	1979	three	P P	N P	[160]
512-56-1	Trimethylphosphate	1978	two	P N	N P	[81]
2489-77-2	Trimethylthiourea	1979	one	N P	N N	[12]31
76-87-9	Triphenyitin hydroxide	1978	neg.	N N	N N	p391
78-42-2	Tris(2-Ethylhexyl)phosphate	1984	one	E N	N P	[274]
126-72-7"	Tris(2,3-Dibromopropyl)phosphate	1978	four	P P	P P	[761
52-24-4*	Tris(Aziridinyl)-phosphine sulfide	1978	four	P P	P P	[58]
73-22-3	L-Tryptophan	1978	neg.	N N	N N	[71]
100-40-3	4-Vinylcyclohexene.	1986	one	I I	1 P	[30q
75-35-4	Vinylidene chloride (1,1-dichloroethylene)	1982	neg.		N N	[228]
1330-20-7	Xylenes (mixed).	NA	neg.		N N	[327]
17924-92-4	Zearalenone	1982	two	N N	P P	[235]
137-30-4	Ziram	1983	one	P N	N E	[238]

KEY: P—phosphate; N—negative; I—inadequate; E—equivocal; NA—not available.

"Indicates listing in Annual Report on Carcinogens.

SOURCE: Haseman, J.K. Huff, J.E. Zeiger, E.E., et al. "Results of 327 Chemical Carcinogenicity Studies Conducted by the National Cancer Institute and the National Toxicology Program." *Environ. Health Perspectives* (in press)