

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (7/14/00)

Chemical	OSHA	IARC	NTP	ACGIH
AF-2[2-(2-furyl)-3-(5-nitro-2-furyl)acrylamide]		2B		
acetaldehyde		2B	R	A3
acetamide		2B		
acetic acid, cobalt(2+) salt		2B		
2-acetylaminofluorene	yes		R	
acrylamide		2A	R	A3
acrylonitrile	yes	2B	R	A2
adriamycin		2A	R	
adriamycin hydrochloride			R	
aflatoxin B1		1		
aflatoxin M1		2B		
aflatoxins		1	K	
alcoholic beverages		1		
aldrin				A3
allyl chloride				A3
aluminium production		1		
1-amino-2-methylanthraquinone			R	
2-amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole		2B		
amino-alpha-c (2-amino-9h-pyrido[2,3-b]indole)		2B		
2-aminoanthraquinone			R	
para-aminoazobenzene		2B		
ortho-aminoazotoluene		2B	R	
4-aminodiphenyl	yes	1	K	A1
amitrole		2B	R	A3
ammonium dichromate (VI)		1		
ammonium perfluorooctanoate				A3
anaesthetics, volatile		2A		
analgesic mixtures containing phenacetin		1	K	
androgenic (anabolic) steroids		2A		
aniline				A3
ortho-anisidine		2B	K	A3
o-anisidine hydrochloride		2B	K	
antimony trioxide production		2B		A2
aramite		2B		
arsenous acid, calcium salt (2:1), and potassium salt			K	
arsenic acid, calcium salt, and calcium salt (2:3)		1	K	
arsenic acid, disodium salt, heptahydrate			K	
arsenic acid, lead (2+) salt (1:1)			K	
arsenic acid, monopotassium salt, and sodium salt			K	

<b>OSHA- Occupational Safety and Health Administration, U.S. Department of Labor</b> OSHA regulated chemicals marked with "yes"	<b>NTP- National Toxicology Program, U.S. Department of Health and Human Services</b> Group K: known to be human carcinogens Group R: reasonably anticipated to be human carcinogens
<b>IARC- International Agency for Research on Cancer</b> Group 1: carcinogenic to humans Group 2A: probably carcinogenic to humans Group 2B: possibly carcinogenic to humans	<b>ACGIH- American Conference of Governmental Industrial Hygienists</b> Group A1: confirmed human carcinogen Group A2: suspected human carcinogen Group A3: confirmed animal carcinogen with unknown relevance to humans

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (7/14/00)

Chemical	OSHA	IARC	NTP	ACGIH
arsenic pentoxide			K	
arsenic trioxide		1	K	
arsenic, elemental and inorganic compounds as As	yes	1	K	A1
arsenious acid, monosodium salt		1	K	
arsenious acid, calcium salt, and calcium salt (1:1)			K	
art glass, glass containers and pressed ware (manufacture of)		2A		
asbestos	yes	1	K	A1
asbestos, actinolite	yes	1		A1
asbestos, amosite, anthophyllite, chrysotile, crocidolite	yes	1	K	A1
asbestos, tremolite	yes	1		A1
atrazine		2B		
auramine		2B		
auramine, manufacture of		1		
azacitidine		2A	R	
azaserine		2B		
azathioprine		1	K	
azblen asbestos			K	
barium chromate (VI)		1	K	
benz[a]anthracene		2A	R	A2
benzal chloride		2A		
benzene	yes	1	K	A1
benzidine	yes	1	K	A1
benzidine-based dyes		2A		
benzo[a]pyrene		2A	R	A2
benzo[b]fluoranthene		2B	R	A2
benzo[j]fluoranthene, and [k]		2B	R	
benzofuran		2B		
benzotrichloride		2A	R	A2
benzoyl chloride		2A		
benzyl chloride		2A		A3
benzyl violet 4B		2B		
beryllium compounds		1	R	A1
beryllium aluminum alloy		1	R	
beryllium aluminum silicate		1	R	
beryllium and beryllium compounds		1	R	A1
beryllium chloride		1	R	
beryllium compounds, n.o.s.		1	R	
beryllium phosphate		1	R	
beryllium hydroxide		1	R	

<b>OSHA- Occupational Safety and Health Administration, U.S. Department of Labor</b> OSHA regulated chemicals marked with "yes"	<b>NTP- National Toxicology Program, U.S. Department of Health and Human Services</b> Group K: known to be human carcinogens Group R: reasonably anticipated to be human carcinogens
<b>IARC- International Agency for Research on Cancer</b> Group 1: carcinogenic to humans Group 2A: probably carcinogenic to humans Group 2B: possibly carcinogenic to humans	<b>ACGIH- American Conference of Governmental Industrial Hygienists</b> Group A1: confirmed human carcinogen Group A2: suspected human carcinogen Group A3: confirmed animal carcinogen with unknown relevance to humans

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (7/14/00)

Chemical	OSHA	IARC	NTP	ACGIH
beryllium oxide		1	R	
beryllium oxide carbonate		1	R	
beryllium sulfate		1	R	
beryllium sulfate tetrahydrate		1	R	
beryllium zinc silicate		1	R	
betel quid with tobacco		1		
n,n-bis(2-chloroethyl)-2-naphthylamine (chlornaphazine)		1		
bis(chloromethyl)ether	yes	1	K	A1
bischloroethyl nitrosourea (BCNU)		2A	R	
bitumens, extracts of steam-refined and air-refined		2B,3		
bleomycin, chlorohydrate, and sulfate		2B		
bleomycins		2B		
boot and shoe manufacture and repair		1		
bracken fern		2B		
bromacil				A3
bromodichloromethane		2B	R	
bromoform				A3
1,3-butadiene	yes	2A	R	A2
1,4-butanediol dimethanesulfonate (busulphan;myleran)		1	K	
butylated hydroxyanisole (BHA)		2B	R	
beta-butyrolactone		2B		
Cl acid red 114		2B		
Cl basic red 9		2B	R	
Cl direct blue 15		2B		
cadmium, elemental, and compounds, as Cd	yes	1	R	A2
cadmium carbonate			R	
cadmium chloride		1	R	
cadmium fluoborate			R	
cadmium fume (as Cd)		1	R	
cadmium nitrate			R	
cadmium oxide			R	
cadmium sulfate		1	R	
cadmium sulfide		1	R	
caffeic acid		2B		
calcium chromate (VI)		1	K	A2
captafol		2A		
captan				A3
carbon black		2B		
carbon tetrachloride		2B	R	A2
carpentry and joinery		2B		

<u>OSHA- Occupational Safety and Health Administration, U.S. Department of Labor</u> OSHA regulated chemicals marked with "yes"	<u>NTP- National Toxicology Program, U.S. Department of Health and Human Services</u> Group K: known to be human carcinogens Group R: reasonably anticipated to be human carcinogens
<u>IARC-International Agency for Research on Cancer</u> Group 1: carcinogenic to humans Group 2A: probably carcinogenic to humans Group 2B: possibly carcinogenic to humans	<u>ACGIH- American Conference of Governmental Industrial Hygienists</u> Group A1: confirmed human carcinogen Group A2: suspected human carcinogen Group A3: confirmed animal carcinogen with unknown relevance to humans

**Table 9**  
**Carcinogens Table: OSHA, IARC, NTP, ACGIH (7/14/00)**

<b>Chemical</b>	<b>OSHA</b>	<b>IARC</b>	<b>NTP</b>	<b>ACGIH</b>
carrageenan, degraded		2B		
catechol		2B		A3
ceramic fibers		2B	R	
chlorambucil		1	K	
chloramphenicol		2A		
alpha-chlordane, and beta, and gamma		2B		
chlordane		2B		A3
chlordane, technical		2B		
chlordecone (kepone)		2B	R	
chlorendic acid		2B	R	
chlorinated paraffins (C12 60% and C23, 43% chlorine)		2B	R	
alpha-chlorinate toluenes (benzal chloride, benzyl chloride, benzotrithloride) and bonzoyl chloride (combined exposures)		2A		
2-(4-chloro-2-methyl phenoxy) propionic acid (mecoprop)		2B		
1-chloro-2-methylpropene		2B	R	
3-chloro-2-methylpropene			R	
4-chloro-o-toluidine hydrochloride		2A	R	
4-chloro-ortho-phenylenediamine		2B	R	
para-chloro-ortho-toluidine, and its strong acid salts		2A		
para-chloroaniline		2B		
chlorobenzene				A3
chlorodiphenyl (54% chlorine)				A3
1-(2-chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea (methyl-CCNU;semustine)		1	K	
1-(2-chloroethyl)-3-cyclohexyl-1-nitrosourea (CCNU)		2A	R	
chloroform		2B	R	A3
chloromethyl methyl ether	yes	1	K	A2
chlorophenols		2B		
polychlorophenols and their sodium salts (mixed exposures)		2B		
chlorophenoxy herbicides		2B		
2-(o-chlorophenyl)-2-(p-chlorophenyl)-1,1,1-trichloroethane		2B		
2-(o-chlorophenyl)-2-(p-chlorophenyl)-1, 1-dichloroethane		2B		
chloroprene		2B		
chlorothalonil		2B		
chlorozotocin		2A	R	
chromate(1-), hydroxyoctaoxodizincatedi-, potassium		1		A1
chromic acid, lead(2+) Salt (1:1)		1	K	A2
chromic acid, disodium salt		1	K	
chromite (mineral)			K	
chromite ore processing (chromate) as Cr				A1

<b>OSHA- Occupational Safety and Health Administration, U.S. Department of Labor</b> OSHA regulated chemicals marked with "yes"	<b>NTP- National Toxicology Program, U.S. Department of Health and Human Services</b> Group K: known to be human carcinogens Group R: reasonably anticipated to be human carcinogens
<b>IARC-International Agency for Research on Cancer</b> Group 1: carcinogenic to humans Group 2A: probably carcinogenic to humans Group 2B: possibly carcinogenic to humans	<b>ACGIH- American Conference of Governmental Industrial Hygienists</b> Group A1: confirmed human carcinogen Group A2: suspected human carcinogen Group A3: confirmed animal carcinogen with unknown relevance to humans

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (7/14/00)

Chemical	OSHA	IARC	NTP	ACGIH
chromium (VI) chloride		1		
chromium (VI) compounds		1	K	
chromium (VI) dioxychloride		1		
chromium and certain chromium compounds			K	
chromium carbamate (6Cl)			K	
chromium phosphate			K	
chromium triacetate			K	
chromium (VI) oxide (1:3)		1	K	
chromium, metal & inorganic compounds, as Cr, insoluble Cr VI compounds, and water soluble Cr VI compounds				A1
chrysene				A3
cisplatin		2A	R	
citrus red number 2		2B		
clonorchis sinensis (infection with)		2A		
coal gasification		1		
coal tar, and coal tar distillate		1	K	
coal tar pitch volatiles, as benzene solubles		1		A1
cobalt (II) carbonate hydroxide (2:3) monohydroxide		2B		
cobalt alloy, Co, Cr		2B	K	
cobalt and cobalt compounds		2B		A3
cobalt carbonate (1:1)		2B		
cobalt carbonate, cobalt dihydroxide (2:3)		2B		
cobalt (Co <sub>4</sub> (Co) <sub>12</sub> )		2B		
cobalt dinitrate hexahydrate		2B		
cobalt hydroxide		2B		
cobalt hydroxide oxide		2B		
cobalt molybdate (VI)		2B		
cobalt naphthanate		2B		
cobalt oxide, (II) oxide, and (III) oxide		2B		
cobalt triacetate		2B		
cobalt (II) sulfide		2B		
cobalt (II) acetate tetrahydrate		2B		
cobalt (II) chloride, and chloride hexahydrate		2B		
cobalt (II) hydroxide		2B		
cobalt (II) nitrate (1:2)		2B		
cobalt (II) sulfate (1:1)		2B		
cobalt, (mu-(carbonato(2-)-O:O'))dihydroxydi		2B		
cobalt, di-mu-carbonylhexacarbonyldi-, (Co-Co)		2B		
cobalt-aluminium-chromium spinel		2B		
cobalt-chromium-molybdenum-alloy		2B		

<b>OSHA- Occupational Safety and Health Administration, U.S. Department of Labor</b> OSHA regulated chemicals marked with "yes"	<b>NTP- National Toxicology Program, U.S. Department of Health and Human Services</b> Group K: known to be human carcinogens Group R: reasonably anticipated to be human carcinogens
<b>IARC-International Agency for Research on Cancer</b> Group 1: carcinogenic to humans Group 2A: probably carcinogenic to humans Group 2B: possibly carcinogenic to humans	<b>ACGIH- American Conference of Governmental Industrial Hygienists</b> Group A1: confirmed human carcinogen Group A2: suspected human carcinogen Group A3: confirmed animal carcinogen with unknown relevance to humans

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (7/14/00)

Chemical	OSHA	IARC	NTP	ACGIH
cobalt-chromium-nickel-tungsten alloy		2B		
coffee (urinary bladder)		2B		
coke oven emissions	yes		K	
coke production	yes	1	K	
conjugated estrogens (sodium [estrone & equilin] sulfate)			K	
creosote, and creosote wood		2A	K	
para-cresidine		2B	R	
crotonaldehyde				A3
cupferron			R	
cycasin		2B		
cyclophosphamide		1	K	
cyclophosphamide hydrate		1		
cycosporin A		1	K	
DDD (dichlorodiphenyldichloroethane)		2B		
DDE (dichlorodiphenyldichloroethylene)		2B		
DDT		2B	R	A3
dacarbazine		2B	R	
dantron (chrysazin; 1,8-dihydroxyanthraquinone, danthron)		2B	R	
daunomycin		2B		
decabromobiphenyl (under polybrominated biphenyls)			R	
di(2-ethylhexyl)phthalate		2B	R	A3
N,N'-diacetylbenzidine		2B		
2,4-diaminoanisole, and its salts		2B		
2,4-diaminoanisole sulfate			R	
4,4'-diaminodiphenyl ether		2B	R	
2,4-diaminotoluene		2B	R	
diazomethane				A2
dibenz[a,h]acridine, and [a,j]		2B	R	
dibenz[a,h]anthracene		2A	R	
dibenzo[a,e]pyrene, and [a,h], and [a,I], and [a,l]		2B	R	
7h-dibenzo[c,g]carbazole		2B	R	
1,2-dibromo-3-chloropropane (DBCP)	yes	2B	R	
1,4-dichloro-2-butene				A2
3,3'-dichloro-4,4'-diaminodiphenyl ether		2B		
dichloroacetylene				A3
para-dichlorobenzene		2B	R	A3
3,3'-dichlorobenzidine	yes	2B	R	A3
3,3'-dichlorobenzidine hydrochloride			R	
1,2-dichloroethane		2B	R	
dichloromethane	yes	2B	R	A3
2-(2,4-dichlorophenoxy)propionic acid		2B		

<b>OSHA- Occupational Safety and Health Administration, U.S. Department of Labor</b> OSHA regulated chemicals marked with "yes"	<b>NTP- National Toxicology Program, U.S. Department of Health and Human Services</b> Group K: known to be human carcinogens Group R: reasonably anticipated to be human carcinogens
<b>IARC- International Agency for Research on Cancer</b> Group 1: carcinogenic to humans Group 2A: probably carcinogenic to humans Group 2B: possibly carcinogenic to humans	<b>ACGIH- American Conference of Governmental Industrial Hygienists</b> Group A1: confirmed human carcinogen Group A2: suspected human carcinogen Group A3: confirmed animal carcinogen with unknown relevance to humans

**Table 9**  
**Carcinogens Table: OSHA, IARC, NTP, ACGIH (7/14/00)**

<b>Chemical</b>	<b>OSHA</b>	<b>IARC</b>	<b>NTP</b>	<b>ACGIH</b>
1,3-dichloropropene (technical grade)		2B	R	
dichlorvos		2B		
diepoxybutane, meso-1,2:3,4		2B	R	
1-1,2:3,4-diepoxybutane		2B		
diesel engine exhaust, and marine fuel, and distillate (light)		2B		
diethyl sulfate		2A	R	
1,2-diethylhydrazine		2B		
diethylstilbesterol (DES)		1	K	
diglycidyl resorcinol ether		2B	R	
dihydrosafrole		2B		
dihydroxymethylfuratrizine		2B		
diisopropyl sulfate		2B		
3,3'-dimethoxybenzidine (ortho-dianisidine)		2B	R	
3,3'-dimethoxybenzidine dihydrochloride			R	
dimethyl sulfate		2A	R	A3
michler's ketone			R	
trans-2-[(dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-oxadiazole		2B		
para-dimethylaminoazobenzene	yes	2B	R	
2,6-dimethylaniline (2,6-xylidine)		2B		
3,3'-dimethylbenzidine (o-tolidine)		2B	R	A3
dimethylcarbamoyl chloride		2A	R	A2
1,1-dimethylhydrazine		2B	R	A3
1,2-dimethylhydrazine		2A		
3,7-dinitrofluorantene		2B		
3,9-dinitrofluoranthene		2B		
1,6-dinitropyrene, and 1,8 dinitropyrene		2B	R	
dinitrotoluene, 2,4 and 2,6 dinitrotoluene		2B		A3
1,4-dioxane		2B	R	A3
direct black 38			R	
direct blue 6			R	
disperse blue 1		2B	R	
dry cleaning, (occupational exposures in)		2B		
engine exhaust, gasoline		2B		
epichlorohydrin		2A	R	A3
1,2-epoxybutane		2B		
epstein-barr virus		1		
erionite		1	K	
estrogens (not conjugated), estradiol-17 beta, and estrone, and ethinylestradiol, and mestranol			R	

<b>OSHA- Occupational Safety and Health Administration, U.S. Department of Labor</b> OSHA regulated chemicals marked with "yes"	<b>NTP- National Toxicology Program, U.S. Department of Health and Human Services</b> Group K: known to be human carcinogens Group R: reasonably anticipated to be human carcinogens
<b>IARC- International Agency for Research on Cancer</b> Group 1: carcinogenic to humans Group 2A: probably carcinogenic to humans Group 2B: possibly carcinogenic to humans	<b>ACGIH- American Conference of Governmental Industrial Hygienists</b> Group A1: confirmed human carcinogen Group A2: suspected human carcinogen Group A3: confirmed animal carcinogen with unknown relevance to humans

**Table 9**  
**Carcinogens Table: OSHA, IARC, NTP, ACGIH (7/14/00)**

<b>Chemical</b>	<b>OSHA</b>	<b>IARC</b>	<b>NTP</b>	<b>ACGIH</b>
ethyl acrylate		2B	R	
ethyl bromide				A3
chloroethane				A3
ethyl methanesulfonate		2B	R	
n-ethyl-N-nitrosourea		2A	R	
ethylene dibromide		2A	R	A3
ethylene oxide	yes	1	R	A2
ethylene thiourea		2B	R	
ethyleneimine (aziridine)	yes	2B		A3
foreign bodies implanted in tissue		2B		
formaldehyde gas	yes	2A	R	A2
2-(2-formylhydrazino)-4-(5-nitro-2-furyl)thiazole		2B		
fowler's solution		1		
fuel oil, residual (heavy)		2B		
furan		2B	R	
furfural				A3
furniture and cabinet making		1		
fusarium moniliforme (toxins derived from)		2B		
gasoline, including unleaded		2B		A3
glass wool fibers		2B	R	A3
glu-p-1 (2-amino-6-methyldipyrido[1,2-a:3',2'-d]imidazole		2B		
glu-p-2 (2-aminodipyrido[1,2-a:3'2'-d]imidazole		2B		
glycidaldehyde		2B		
glycidol			R	A3
griseofulvin		2B		
hc blue #1		2B		
hematite mining, underground with exposure to radon		1		
hairdresser or barber, occupational exposure		2A		
helicobacter pylori, infection with		1		
hepatitis b and c virus, (chronic infection with)		1		
heptachlor, and heptachlor epoxide		2B		A3
hexachlorobenzene		2B	R	A3
hexachlorobutadiene				A3
hexachlorocyclohexanes (all isomers) alpha, beta, gamma		2B	R	
hexachloroethane		2B	R	A3
hexamethylphosphoramide		2B	R	A3
hot mate		2A		
human t-cell lymphotropic virus type 1		1		
human immunodeficiency virus type 1 (infection with)		1		
human immunodeficiency virus type 2 (infection with)		2B		

<u>OSHA- Occupational Safety and Health Administration, U.S. Department of Labor</u> OSHA regulated chemicals marked with "yes"	<u>NTP- National Toxicology Program, U.S. Department of Health and Human Services</u> Group K: known to be human carcinogens Group R: reasonably anticipated to be human carcinogens
<u>IARC-International Agency for Research on Cancer</u> Group 1: carcinogenic to humans Group 2A: probably carcinogenic to humans Group 2B: possibly carcinogenic to humans	<u>ACGIH- American Conference of Governmental Industrial Hygienists</u> Group A1: confirmed human carcinogen Group A2: suspected human carcinogen Group A3: confirmed animal carcinogen with unknown relevance to humans

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (7/14/00)

Chemical	OSHA	IARC	NTP	ACGIH
human papillomavirus type 16 and 18		1		
human papillomavirus type 31 and 33		2A		
human papillomavirus type other than 16,18, 31 and 33		2B		
hydrazine, methyl hydrazine		2B	R	A3
hydrazine sulfate			R	
hydrazobenzene			R	
hydrogen peroxide				A3
hydroquinone				A3
IQ (2-amino-3-methylimidazo[4,5-f]quinoline)		2A		
indeno[1,2,3-cd]pyrene		2B	R	
iron and steel founding		1		
iron-dextran complex		2B	R	
isophorone				A3
isoprene		2B		
isopropanol manufacture (strong acid process)		1		
kaposi's sarcoma herpes virus/human herpes virus 8		2A		
lasiocarpine		2B		
lead acetate, lead acetate (II) and trihydrate			R	
lead and lead compounds, inorganic		2B		A3
lead chromate			K	A2
lead chromate (VI) oxide		1	K	
lead phosphate		2B	R	
lindane				A3
MOPP & combined chemotherapy including alkylating agent		1		
magenta, containing Cl basic red 9		2B		
magenta, manufacture of		1		
mea-alpha-c (2-amino-3-methyl-9H-pyrido[2,3-b]indole)		2B		
medroxyprogesterone acetate		2B		
MelQ (2-amino-3,4-dimethylimidazo[4,5f]quinoline)		2B		
MelQx (2-amino-3,8-dimethylimidazo[4,5-f]quinoxaline)		2B		
melfhalan		1	K	
merphalan		2B		
5-methoxypsoralen		2A		
8-methoxypsoralen (methoxsalen) plus uv radiation & uv (a)		1	K	
methyl mercury compounds		2B		
methyl methanesulfonate		2A	R	
2-methyl-1-nitroanthraquinone (uncertain purity)		2B		
n-methyl-N'-nitro-N-nitrosoguanidine (MNNG)		2A	R	
n-methyl-N-nitrosourea		2A	R	
n-methyl-N-nitrosourethane		2B		

<b>OSHA- Occupational Safety and Health Administration, U.S. Department of Labor</b> OSHA regulated chemicals marked with "yes"	<b>NTP- National Toxicology Program, U.S. Department of Health and Human Services</b> Group K: known to be human carcinogens Group R: reasonably anticipated to be human carcinogens
<b>IARC-International Agency for Research on Cancer</b> Group 1: carcinogenic to humans Group 2A: probably carcinogenic to humans Group 2B: possibly carcinogenic to humans	<b>ACGIH- American Conference of Governmental Industrial Hygienists</b> Group A1: confirmed human carcinogen Group A2: suspected human carcinogen Group A3: confirmed animal carcinogen with unknown relevance to humans

**Table 9**  
**Carcinogens Table: OSHA, IARC, NTP, ACGIH (7/14/00)**

<b>Chemical</b>	<b>OSHA</b>	<b>IARC</b>	<b>NTP</b>	<b>ACGIH</b>
methyl-tert butyl ether				A3
2-methylaziridine (propyleneimine)		2B	R	A3
methylazoxymethanol, and its acetate		2B		
5-methylchrysene		2B	R	
4,4'-methylene bis(2-chloroaniline)		2A	R	A2
4,4'-methylene bis(2-methylaniline)		2B		
4,4'-methylene bis(n,n-dimethyl)benzenamine			R	
4,4'-methylenedianiline	yes	2B	R	A3
4,4'-methylenedianiline dihydrochloride			R	
methylthiouracil		2B		
metronidazole		2B	R	
mineral oil, petroleum residual oils, acid treated, condensates		1		
mineral oil, petroleum distillates, acid treated heavy naphthenic		1		
mineral oil, petroleum distillates, acid treated heavy paraffinic		1		
mineral oil, petroleum distillates, acid treated light naphthenic		1		
mineral oil, petroleum distillates, acid treated light paraffinic		1		
mineral oil, petroleum distillates, heavy & light naphthenic		1		
mineral oil, petroleum distillates, heavy & light paraffinic		1		
mineral oil, petroleum distillates, hydrotreated heavy paraffinic		1		
mineral oil, petroleum distillates, hydrotreated light paraffinic		1		
mineral oil, petroleum distillates, solvent-dewaxed heavy or light naphthenic (mild or no solvent-refining or hydrotreatment)		1		
mineral oil, petroleum distillates, solvent-dewaxed heavy paraffinic (mild or no solvent-refining or hydrotreatment)		1		
mineral oil, petroleum distillates, solvent-refined (mild) heavy or light paraffinic		1		
mineral oil, petroleum distillates, solvent-refined (mild) light naphthenic		1		
mineral oil, petroleum extracts, heavy or light naphthenic distillate solvent		1		
mineral oil, petroleum extracts, light or heavy paraffinic distillate solvent		1		
mineral oil, petroleum extracts, residual oil solvent		1		
mineral oil, petroleum naphthenic oils, catalytic dewaxed heavy or light (mild or no solvent-refining or hydrotreatment)		1		
mineral oil, petroleum paraffin oils, catalytic dewaxed heavy (mild or no solvent-refining hydrotreatment)		1		
mineral oil, petroleum distillates, hydrotreated (mild) heavy or light naphthenic		1		
mineral oil, petroleum distillates, solvent-dewaxed light paraffinic (mild or no solvent-refining or hydrotreatment)		1		

<u>OSHA- Occupational Safety and Health Administration, U.S. Department of Labor</u> OSHA regulated chemicals marked with "yes"	<u>NTP- National Toxicology Program, U.S. Department of Health and Human Services</u> Group K: known to be human carcinogens Group R: reasonably anticipated to be human carcinogens
<u>IARC- International Agency for Research on Cancer</u> Group 1: carcinogenic to humans Group 2A: probably carcinogenic to humans Group 2B: possibly carcinogenic to humans	<u>ACGIH- American Conference of Governmental Industrial Hygienists</u> Group A1: confirmed human carcinogen Group A2: suspected human carcinogen Group A3: confirmed animal carcinogen with unknown relevance to humans

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (7/14/00)

Chemical	OSHA	IARC	NTP	ACGIH
mineral oil, petroleum distillates, solvent-refined (mild) heavy naphthenic		1		
mineral oils, untreated and mildly treated		1	K	
mirex		2B	R	
mitomycin c		2B		
molybdate orange		1		
monocrotaline		2B		
5-(morpholinomethyl)-3-[(5-nitrofurfurylidene)amino]-2-oxazolidinone		2B		
mustard gas		1	K	
nafenopin		2B		
2-naphthylamine (alpha)	yes	1	K	A1
nickel alloy, Ni 47-59, Co 17-20, Cr 13-17, Mo 4.5-5.7, Al 3.7-4.7, Ti 3-4, Fe 0-1, C 0-0.1 (AISI 687)		2B		
nickel biscyclopentadiene			R	
nickel carbonyl (as Ni)			R	
nickel compounds		1		
nickel hydroxide, nickel (II) hydroxide, nickel (III) hydroxide			R	
nickel sulfide (3:2)			R	A1
nickel (II) acetate (1:2)			R	
nickel (II) carbonate (1:1)			R	
nickel (II) oxide (1:1)			R	
nickel, insoluble compounds, as Ni				A1
nickel, compound with pi-cyclopentadienyl (1:2)			R	
nickel, metallic and alloys		2B	R	
niridazole		2B		
nitrilotriacetic acid and its salts		2B	R	
nitrilotriacetic acid disodium salt monohydrate		2B		
nitrilotriacetic acid monosodium salt		2B		
nitrilotriacetic acid sodium salt		2B		
nitrilotriacetic acid trisodium salt monohydrate		2B		
nitrilotriacetic acid disodium salt and trisodium salt		2B		
N-[4-(5-nitro-2-furyl)-2-thiazolyl]acetamide		2B		
5-nitroacenaphthene		2B		
2-nitroanisole		2B	R	
nitrobenzene		2B		A3
4-nitrobiphenyl	yes			A2
p-nitrochlorobenzene				A3
6-nitrochrysene		2B	R	
nitrofen, (technical-grade)		2B	R	

<b>OSHA- Occupational Safety and Health Administration, U.S. Department of Labor</b> OSHA regulated chemicals marked with "yes"	<b>NTP- National Toxicology Program, U.S. Department of Health and Human Services</b> Group K: known to be human carcinogens Group R: reasonably anticipated to be human carcinogens
<b>IARC- International Agency for Research on Cancer</b> Group 1: carcinogenic to humans Group 2A: probably carcinogenic to humans Group 2B: possibly carcinogenic to humans	<b>ACGIH- American Conference of Governmental Industrial Hygienists</b> Group A1: confirmed human carcinogen Group A2: suspected human carcinogen Group A3: confirmed animal carcinogen with unknown relevance to humans

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (7/14/00)

Chemical	OSHA	IARC	NTP	ACGIH
2-nitrofluorene		2B		
1-[(5-nitrofurfurylidene)amino]-2-imidazolidinone		2B		
nitrogen mustard, and hydrochloride		2A	R	
nitrogen mustard N-oxide, and N-oxide hydrochloride		2B		
2-nitropropane		2B	R	A3
1-nitropyrene, and 4-nitropyrene		2B	R	
n-nitrosobutylbutanolamine			R	
n-nitrosobutylcarboxypropylamine			R	
N-nitrosodi-n-butylamine		2B	R	
N-nitrosodi-n-propylamine		2B	R	
N-nitrosodiethanolamine		2B	R	
n-nitrosodiethylamine		2A	R	
n-nitrosodimethylamine	yes	2A	R	A3
4-(N-nitrosomethylamino)-1-(3-pyridyl)-1-butanone (NNK)		2B	R	
3-(N-nitrosomethylamino)propionitrile		2B		
N-nitrosomethylethylamine		2B		
N-nitrosomethylvinylamine		2B	R	
N-nitrosomorpholine		2B	R	
N'-nitroso-nornicotine		2B	R	
N-nitrosopiperidine		2B	R	
N-nitrosopyrrolidine		2B	R	
N-nitrososarcosine		2B	R	
norethisterone			R	
ochratoxin A		2B	R	
oestrogen-proestrogen therapy, postmenopausal		2B		
oestrogens, steroidal and nonsteroidal		1		
oil orange SS		2B		
opisthorchis viverrini (infection with)		1		
oral contraceptives, sequential and combined		1		
oxazepam		2B		
oxymetholone			R	
painter (occupational exposure as a)		1		
palygorskite (attapulgate) (long fibers, >5 micrometers		2B		
panfuran S (containing dihydroxymethylfuratrizine)		2B		
pentachlorobiphenyl			R	
pentachlorophenol				A3
petroleum refining (occupational exposures in)		2A		
petroleum residues, thermal cracked		2A		
phenacetin		2A	R	
phenazopyridine hydrochloride		2B	R	

<b>OSHA- Occupational Safety and Health Administration, U.S. Department of Labor</b> OSHA regulated chemicals marked with "yes"	<b>NTP- National Toxicology Program, U.S. Department of Health and Human Services</b> Group K: known to be human carcinogens Group R: reasonably anticipated to be human carcinogens
<b>IARC- International Agency for Research on Cancer</b> Group 1: carcinogenic to humans Group 2A: probably carcinogenic to humans Group 2B: possibly carcinogenic to humans	<b>ACGIH- American Conference of Governmental Industrial Hygienists</b> Group A1: confirmed human carcinogen Group A2: suspected human carcinogen Group A3: confirmed animal carcinogen with unknown relevance to humans

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (7/14/00)

Chemical	OSHA	IARC	NTP	ACGIH
phenobarbital		2B		
phenoxybenzamine hydrochloride		2B	R	
phenyl glycidyl ether		2B		A3
o-phenylenediamine				A3
phenylhydrazine				A3
phenytoin		2B	R	
PhIP (2-amino-1-methyl-6-phenyl-imidazo[4,5-b]pyridine		2B		
pickled vegetables (traditional in Asia)		2B		
piperazine estrone sulfate (conjugated estrogen)			K	
polybrominated biphenyl (FF-1), and (PBBs), firemaster BP-6, octabromobiphenyl		2B	R	
polychlorinated biphenyl (aroclor 1254)		2A	R	A3
polychlorinated biphenyl (aroclor 1260), and kanechlor			R	
polychlorinated biphenyl [PCBs]		2A	R	
polychlorophenols and their sodium salts (mixed exposures)		2B		
polycyclic aromatic hydrocarbons (PAHs)			R	
ponceau 3r		2B		
ponceau mx		2B		
potassium bromate		2B		
potassium chromate (VI), and dichromate (VI)		1	K	
printing processes (occupational exposures in)		2B		
procarbazine hydrochloride		2A	R	
progesterone			R	
progestins		2B		
progestogen-only contraceptives		2B		
1,3-propane sultone		2B	R	A3
beta-propiolactone	yes	2B	R	A3
propoxur (baygon)				A3
propylene oxide		2B	R	A3
propylthioracil		2B	R	
radon and its decay products		1	K	
reserpine			R	
rock wool fibers		2B		A3
rubber industry		1		
saccharin, and saccharin sodium salt		2B	R	
saccharin calcium			R	
safrole		2B	R	
salted fish (Chinese style)		1		
schistosoma haematobium (infection with)		1		
schistosoma japonicum (infection with)		2B		

<b>OSHA- Occupational Safety and Health Administration, U.S. Department of Labor</b> OSHA regulated chemicals marked with "yes"	<b>NTP- National Toxicology Program, U.S. Department of Health and Human Services</b> Group K: known to be human carcinogens Group R: reasonably anticipated to be human carcinogens
<b>IARC- International Agency for Research on Cancer</b> Group 1: carcinogenic to humans Group 2A: probably carcinogenic to humans Group 2B: possibly carcinogenic to humans	<b>ACGIH- American Conference of Governmental Industrial Hygienists</b> Group A1: confirmed human carcinogen Group A2: suspected human carcinogen Group A3: confirmed animal carcinogen with unknown relevance to humans

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (7/14/00)

Chemical	OSHA	IARC	NTP	ACGIH
selenium sulfide			R	
senarmonite		2B		
shale-oils		1		
silica, crystalline		1	R	
silica, crystalline cristobalite and tridymite		2A	R	
silica, crystalline tripoli		2A		
silicic acid, beryllium salt		1		
slag wool fibers		2B		A3
sodium dichromate (VI)		1	K	
sodium ortho-phenylphenate		2B		
solar radiation		1		
soots		1	K	
sterigmatocystin		2B		
streptozotocin		2B	2	
strontium chromate (VI)		1	K	A2
styrene		2B		
styrene-7,8-oxide		2A		
sulfallate		2B	R	
sulfur trioxide		1		
sulfuric acid, strong inorganic mists, occupational exposure to		1		A2
sunlamps and sunbeds		2A		
synthetic vitreous fibers				A3
talc (containing asbestos or asbestiform fibers)		1		
tamoxifen		1		
tars			1	
2,3,7,8-tetrachlorodibenzo-para-dioxin (TCDD)		1	R	
1,1,2,2-tetrachloroethane				A3
tetrachloroethylene		2A	R	A3
tetrafluoroethylene		2B		
tetranitromethane		2B	R	A3
textile manufacturing industry (work in)		2B		
thioacetamide		2B	R	
4,4'-thiodianiline		2B		
thiotepa		2A	K	
thiourea		2B	R	
thorium dioxide			K	
tobacco smoke, tobacco products, smokeless		1		
2,6-toluene diisocyanate, and 2,4-		2B		
toluene diisocyanate (mixed isomers)		2B	R	
o-toluenesulfonamide		2B		

<b>OSHA- Occupational Safety and Health Administration, U.S. Department of Labor</b> OSHA regulated chemicals marked with "yes"	<b>NTP- National Toxicology Program, U.S. Department of Health and Human Services</b> Group K: known to be human carcinogens Group R: reasonably anticipated to be human carcinogens
<b>IARC-International Agency for Research on Cancer</b> Group 1: carcinogenic to humans Group 2A: probably carcinogenic to humans Group 2B: possibly carcinogenic to humans	<b>ACGIH- American Conference of Governmental Industrial Hygienists</b> Group A1: confirmed human carcinogen Group A2: suspected human carcinogen Group A3: confirmed animal carcinogen with unknown relevance to humans

**Table 9**  
**Carcinogens Table: OSHA, IARC, NTP, ACGIH (7/14/00)**

<b>Chemical</b>	<b>OSHA</b>	<b>IARC</b>	<b>NTP</b>	<b>ACGIH</b>
p-toluidine				A3
o-toluidine hydrochloride			R	
ortho-toluidine		2B	R	A3
toxaphene (polychlorinated camphenes)		2B	R	A3
treosulphan		1		
trichlormethine (trimustine hydrochloride)		2B		
trichloroacetic acid				A3
trichloroethylene		2A		
2,4,6-trichlorophenol			R	
1,2,3-trichloropropane		2A	R	A3
tris(2,3-dibromopropyl)phosphate		2A	R	
trp-P-1(3-amino-1,4-dimethyl-5H-pyrido[4,3-b]indole)		2B		
trp-P-2(3-amino-1-methyl-5H-pyrido[4,3-b]indole)		2B		
trypan blue		2B		
ultraviolet radiation A, and B, and C		2A		
uracil mustard		2B		
uranium (as U)				A1
urethane		2B	R	
vm & p naphtha				A3
valentinite		2B		
vinyl acetate		2B		A3
vinyl bromide		2A		A2
vinyl chloride	yes	1	K	A1
4-vinyl cyclohexene		2B		A3
vinyl fluoride		2A		A2
4-vinyl-1-cyclohexene diepoxide		2B	R	A3
welding fumes		2B		
wood dust (certain hard woods as beech & oak)		1		A1
xylidine				A3
zinc chromate (VI)		1	K	A1
zinc chromate (VI) hydroxide		1		
zinc chromates as Cr (zinc potassium chromate)				A1
zinc chromates as Cr (zinc yellow)				A1

<b>OSHA- Occupational Safety and Health Administration, U.S. Department of Labor</b> OSHA regulated chemicals marked with "yes"	<b>NTP- National Toxicology Program, U.S. Department of Health and Human Services</b> Group K: known to be human carcinogens Group R: reasonably anticipated to be human carcinogens
<b>IARC-International Agency for Research on Cancer</b> Group 1: carcinogenic to humans Group 2A: probably carcinogenic to humans Group 2B: possibly carcinogenic to humans	<b>ACGIH- American Conference of Governmental Industrial Hygienists</b> Group A1: confirmed human carcinogen Group A2: suspected human carcinogen Group A3: confirmed animal carcinogen with unknown relevance to humans