

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (April 2001)

| Chemical  | OSHA | IARC | NTP | ACGIH |
|---|------|------|-----|-------|
| AF-2[2-(2-furyl)-3-(5-nitro-2-furyl)acrylamide]       |      | 2B   |     |       |
| acetaldehyde (ethyl aldehyde)                         |      | 2B   | R   | A3    |
| acetamide   |      | 2B   |     |       |
| acetic acid, cobalt(2+) salt                          |      | 2B   |     |       |
| 2-acetylaminofluorene                                 | yes  |      | R   |       |
| acrylamide  |      | 2A   | R   | A3    |
| acrylonitrile   | Yes  | 2B   | R   | A3    |
| adriamycin  |      | 2A   | R   |       |
| adriamycin hydrochloride                              |      |      | R   |       |
| aflatoxin B1  |      | 1    |     |       |
| aflatoxin M1  |      | 2B   |     |       |
| aflatoxins  |      | 1    | K   |       |
| alcoholic beverages                                   |      | 1    | K   |       |
| aldrin (HHDN)   |      |      |     | A3    |
| allyl chloride  |      |      |     | A3    |
| aluminium production                                  |      | 1    |     |       |
| 1-amino-2-methylantraquinone                          |      |      | 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 (aminobenzene)                                |      |      |     | A3    |
| ortho-anisidine                                       |      | 2B   | R   | A3    |
| o-anisidine hydrochloride                             |      | 2B   | R   |       |
| 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><br>OSHA regulated chemicals marked with "yes"  | <b>NTP- National Toxicology Program, U.S. Department of Health and Human Services</b><br>Group K: known to be human carcinogens<br>Group R: reasonably anticipated to be human carcinogens  |
| <b>IARC- International Agency for Research on Cancer</b><br>Group 1: carcinogenic to humans<br>Group 2A: probably carcinogenic to humans<br>Group 2B: possibly carcinogenic to humans | <b>ACGIH- American Conference of Governmental Industrial Hygienists</b><br>Group A1: confirmed human carcinogen<br>Group A2: suspected human carcinogen<br>Group A3: confirmed animal carcinogen with unknown relevance to humans |

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (April 2001)

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

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (April 2001)

| 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 & technical grade                | 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   | K   | A2    |
| 1,4-butanediol dimethanesulfonate (busulphan;myleran)   |      | 1    | K   |       |
| butylated hydroxyanisole (BHA)                          |      | 2B   | R   |       |
| beta-butyrolactone                                      |      | 2B   |     |       |
| CI acid red 114   |      | 2B   |     |       |
| CI basic red 9  |      | 2B   | R   |       |
| CI direct blue 15                                       |      | 2B   |     |       |
| cadmium, elemental, and compounds, as Cd                | Yes  | 1    | K   | A2    |
| cadmium carbonate                                       |      |      | K   |       |
| cadmium chloride  |      | 1    | K   |       |
| cadmium fluoborate                                      |      |      | K   |       |
| cadmium fume (as Cd)                                    |      | 1    | K   |       |
| cadmium nitrate   |      |      | K   |       |
| cadmium oxide   |      |      | K   |       |
| cadmium sulfate   |      | 1    | K   |       |
| cadmium sulfide   |      | 1    | K   |       |
| 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   |     |       |

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

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (April 2001)

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

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (April 2001)

| 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   |     |       |

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

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (April 2001)

| 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 (2-butenal)                                |      |      |     | 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   |     |       |

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

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (April 2001)

| Chemical   | OSHA | IARC | NTP | ACGIH |
|--|------|------|-----|-------|
| 1,3-dichloropropene (technical grade) (DCP)  |      | 2B   | R   | A3    |
| 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   | R   |       |
| diethyl sulfate  |      | 2A   | R   |       |
| di(2-ethylhexyl)phthalate (DEHP)   |      |      |     | A3    |
| 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    |
| 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   |     |       |
| dimethylvinyl chloride   |      |      | R   |       |
| 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  |      |      | K   |       |
| direct blue 6  |      |      | K   |       |
| 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   |       |

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

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (April 2001)

| Chemical  | OSHA | IARC | NTP | ACGIH |
|---|------|------|-----|-------|
| estrogens (not conjugated), estradiol-17 beta, and estrone, and ethinylestradiol, and mestranol |      |      | R   |       |
| ethyl acrylate  |      | 2B   | R   |       |
| ethyl bromide   |      |      |     | A3    |
| chloroethane (ethyl chloride)   |      |      |     | A3    |
| ethyl methanesulfonate  |      | 2B   | R   |       |
| n-ethyl-N-nitrosourea   |      | 2A   | R   |       |
| ethylene dibromide  |      | 2A   | R   | A3    |
| ethylene oxide  | Yes  | 1    | K   | 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 (HCBd)  |      |      |     | A3    |
| hexachlorocyclohexanes (all isomers) alpha, beta, gamma   |      | 2B   | R   |       |
| hexachloroethane (perchloroethane)  |      | 2B   | R   | A3    |
| hexamethylphosphoramide (HMPA)  |      | 2B   | R   | A3    |
| hot mate  |      | 2A   |     |       |
| human t-cell lymphotropic virus type 1  |      | 1    |     |       |
| human immunodeficiency virus type 1 (infection with)  |      | 1    |     |       |

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



Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (April 2001)

| Chemical   | OSHA | IARC | NTP | ACGIH |
|--|------|------|-----|-------|
| human immunodeficiency virus type 2 (infection with)       |      | 2B   |     |       |
| 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   | R   |       |
| 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  |      |      | R   | 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   |     |       |
| melphalan  |      | 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 (N-nitroso-N-methylurea)            |      | 2A   | R   |       |

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

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (April 2001)

| Chemical  | OSHA | IARC | NTP | ACGIH |
|---|------|------|-----|-------|
| n-methyl-N-nitrosourethane  |      | 2B   |     |       |
| 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) (MBOCA)   |      | 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   |       |
| michler's ketone  |      |      | 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    |     |       |

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

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (April 2001)

| Chemical   | OSHA | IARC | NTP | ACGIH |
|--|------|------|-----|-------|
| mineral oil, petroleum distillates, solvent-dewaxed light paraffinic (mild or no solvent-refining or hydrotreatment) |      | 1    |     |       |
| 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    |     |       |
| molybdenum as Mo (soluble compounds)   |      |      |     | A3    |
| monocrotaline  |      | 2B   |     |       |
| 5-(morpholinomethyl)-3-[(5-nitrofurfurylidene)amino]-2-oxazolidinone   |      | 2B   |     |       |
| mustard gas  |      | 1    | K   |       |
| nafenopin  |      | 2B   |     |       |
| 2-naphthylamine (alpha & beta) (aminonaphthalene)  | 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    | R   |       |
| 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   |     |       |
| nitrotriacetic acid and its salts  |      | 2B   | R   |       |
| nitrotriacetic acid disodium salt monohydrate  |      | 2B   |     |       |
| nitrotriacetic acid monosodium salt  |      | 2B   |     |       |
| nitrotriacetic acid sodium salt  |      | 2B   |     |       |
| nitrotriacetic acid trisodium salt monohydrate   |      | 2B   |     |       |
| nitrotriacetic 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    |

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

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (April 2001)

| Chemical  | OSHA | IARC | NTP | ACGIH |
|---|------|------|-----|-------|
| p-nitrochlorobenzene                                    |      |      |     | A3    |
| 6-nitrochrysene   |      | 2B   | R   |       |
| nitrofen, (technical-grade)                             |      | 2B   | R   |       |
| 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   |     |       |
| nitromethane  |      |      |     | A3    |
| 2-nitropropane  |      | 2B   | R   | A3    |
| 1-nitropyrene, and 4-nitropyrene                        |      | 2B   | R   |       |
| N-nitroso-N-ethylurea                                   |      |      | 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'-nitrosornicotine                                     |      | 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   |     |       |
| 4,4'-oxydianiline                                       |      |      | R   |       |
| oxymetholone  |      |      | R   |       |
| painter (occupational exposure as a)                    |      | 1    |     |       |
| palygorskite (attapulgate) (long fibers, >5 micrometers |      | 2B   |     |       |
| panfuran S (containing dihydroxymethylfuratrizine)      |      | 2B   |     |       |

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

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (April 2001)

| Chemical   | OSHA | IARC | NTP | ACGIH |
|--|------|------|-----|-------|
| pentachlorobiphenyl  |      |      | R   |       |
| pentachlorophenol  |      |      |     | A3    |
| petroleum refining (occupational exposures in)                                 |      | 2A   |     |       |
| petroleum residues, thermal cracked  |      | 2A   |     |       |
| phenacetin   |      | 2A   | R   |       |
| phenazopyridine hydrochloride  |      | 2B   | R   |       |
| phenobarbital  |      | 2B   |     |       |
| phenolphthalein  |      |      | R   |       |
| 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   |     |       |
| progestrogen-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    |

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

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (April 2001)

| Chemical  | OSHA | IARC | NTP | ACGIH |
|---|------|------|-----|-------|
| 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   |     |       |
| selenium sulfide  |      |      | R   |       |
| senarumontite   |      | 2B   |     |       |
| shale-oils  |      | 1    |     |       |
| silica, crystalline (respirable)                                |      | 1    | K   |       |
| silica, crystalline cristobalite, tridymite & quartz            |      | 2A   | K   | A2    |
| 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   | R   |       |
| 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                                       |      |      |     | A2    |
| talc (containing asbestos or asbestiform fibers)                |      | 1    |     | A1    |
| tamoxifen   |      | 1    | K   |       |
| tars  |      | 1    | K   |       |
| 2,3,7,8-tetrachlorodibenzo-para-dioxin (TCDD) (dioxin)          |      | 1    | K   |       |
| 1,1,2,2-tetrachloroethane                                       |      |      |     | A3    |
| tetrachloroethylene (perchloroethylene)                         |      | 2A   | R   | A3    |
| tetrafluoroethylene   |      | 2B   | R   | A3    |
| tetranitromethane   |      | 2B   | R   | A3    |
| textile manufacturing industry (work in)                        |      | 2B   |     |       |
| thioacetamide   |      | 2B   | R   |       |
| 4,4'-thiodianiline  |      | 2B   |     |       |

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

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (April 2001)

| Chemical   | OSHA | IARC | NTP | ACGIH |
|--|------|------|-----|-------|
| thiotepa   |      | 2A   | K   |       |
| thiourea   |      | 2B   | R   |       |
| thorium dioxide                                      |      |      | K   |       |
| tobacco smoke, tobacco products, smokeless           |      | 1    | K   |       |
| 2,6-toluene diisocyanate, and 2,4-                   |      | 2B   |     |       |
| toluene diisocyanate (mixed isomers)                 |      | 2B   | R   |       |
| o-toluenesulfonamide                                 |      | 2B   |     |       |
| p-toluidine  |      |      | R   | 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    |
| 1,1,2-trichloroethane                                |      |      |     | A3    |
| trichloroethylene (ethylene trichloride)             |      | 2A   | R   |       |
| 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><br>OSHA regulated chemicals marked with "yes"  | <b>NTP- National Toxicology Program, U.S. Department of Health and Human Services</b><br>Group K: known to be human carcinogens<br>Group R: reasonably anticipated to be human carcinogens  |
| <b>IARC- International Agency for Research on Cancer</b><br>Group 1: carcinogenic to humans<br>Group 2A: probably carcinogenic to humans<br>Group 2B: possibly carcinogenic to humans | <b>ACGIH- American Conference of Governmental Industrial Hygienists</b><br>Group A1: confirmed human carcinogen<br>Group A2: suspected human carcinogen<br>Group A3: confirmed animal carcinogen with unknown relevance to humans |

Table 9  
Carcinogens Table: OSHA, IARC, NTP, ACGIH (April 2001)

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