

**TABLE IV**  
**Duke University**  
**1999 Particularly Hazardous Substance List**

CAR= CARCINOGEN INH=ACUTELY TOXIC WHEN INHALED SKIN=ACUTELY TOXIC WHEN ABSORBED RT=REPRODUCTIVE TOXIN

÷	CHEMICAL	CAS #	HAZARD	PRIOR APPROVAL
	ACENAPHTHENE, 5-NITRO-	602-87-9	CAR	
	ACETAMIDE, N-(4-(5-NITRO-2-FURYL)-2-THIAZOLYL)-	531-82-8	CAR	
	ACETAMIDE, THIO-	62-55-5	CAR	
	ACETIC ACID, CHLORO-	79-11-8	INH	YES
	ACETIC ACID, METHOXY((1-OXO-2-PROPENYL)AMINO)-, METHYL ESTER	77402-03-0	INH	YES
	ACETIC ACID, NITRILOTRI-	139-13-9	CAR	
	ACETONITRILE, HYDROXY-	107-16-4	SKIN	YES
	ACETONITRILE, PHENYL-	140-29-4	INH	YES
	ACETOPHENETIDIDE, p-	62-44-2	CAR	
	ACETYLAMINOFLURENE, 2-	53-96-3	CAR	
	ACROLEIN	107-02-8	INH	YES
	ACRYLAMIDE	79-06-1	CAR	
	ACRYLIC ACID, 2-(DIMETHYLAMINO)ETHYL ESTER	2439-35-2	INH	YES
	ACRYLIC ACID, ETHYL ESTER	140-88-5	CAR	
	ACRYLONITRILE	107-13-1	CAR	
	ALLYLAMINE	107-11-9	SKIN	YES
	ALUMINUM, CHLORODIISOBUTYL-	1779-25-5	INH	YES
	AMINODIPHENYL, 4-	92-67-1	CAR	
	AMMONIUM SULFATE	7783-20-2	INH	YES
	ANALINE,((5-CHLORO-8-HYDROXY-3-METHYL-1-OXO-7-ISOCHROMANYL)CARBONYL)-3-PHENYL-,	303-47-9	CAR	
	ANILINE, 4,4'-OXYDI-	101-80-4	CAR	
	ANILINE, 4,4'-THIODI-	139-65-1	CAR	
	ANILINE, N,N-DIMETHYL-p-PHENYLAZO-	60-11-7	CAR	
	ANILINE, p-CHLORO	106-47-8	CAR	
	ANISIDINE, 5-METHYL-,o-	120-71-8	CAR	
	ANTHRACENEDIONE, 1,4,5,8-TETRAAMINO-, 9,10-	2475-45-8	CAR	
	ANTHRAQUINONE, 1,8-DIHYDROXY-	117-10-2	CAR	
	ANTHRAQUINONE, 2-METHYL-1-NITRO-	129-15-7	CAR	
	ANTIMONY OXIDE	1309-64-4	CAR	
	ARSENIC	7440-38-2	CAR/RT	
	AZEPIN-2-ONE, HEXAHYDRO-, 2H-	105-60-2	INH	YES
	AZIRINO(2',3',4)PYRROLO(1,2-a)INDOLE-4,7-DIONE,CARBAMATE (ESTER)	50-07-7	CAR	
	AZOBENZENE	1103-33-3	CAR	
	BENZ(a)ANTHRACENE	56-55-3	CAR	
	BENZENAMINE, 4-((4-AMINOPHENYL)(4-IMINO-2,5-CYCLOHEXADIEN-1-YLIDENE)METHYL),MONOHYDROCHLORIDE	569-61-9	CAR	YES
	BENZENE	71-43-2	CAR/RT	
	BENZENE, (DICHLOROMETHYL)-	98-87-3	INH	YES
	BENZENE, 1,3-BIS(1-METHYLETHYL)-2-ISOCYANATO-	28178-42-9	INH	YES
	BENZENE, 2,4-DIISOCYANATO-1-METHYL-	584-84-9	INH	YES
	BENZENE, 4-ALLYL-1,2-(METHYLENEDIOXY)-	94-59-7	CAR	
	BENZENE, HEXACHLORO-	118-74-1	CAR	
	BENZENETHIOL	108-98-5	INH	YES
	BENZIDINE	92-87-5	CAR	

BENZIDINE, 3,3'-DICHLORO-	91-94-1	CAR	
BENZIDINE, 3,3'-DIMETHOXY-, DIHYDROCHLORIDE	20325-40-0	CAR	
BERYLLIUM SULFATE, TETRAHYDRATE (114)	7787-56-6	CAR	
BIPHENYLOL, 2-	90-43-7	CAR	
BLEOMYCIN	11116-32-8	CAR	
BLEOMYCIN, SULFATE	9041-93-4	CAR	
BORON	7440-42-8	RT	
BORON TRICHLORIDE	10294-34-5	INH	YES
BROMIC ACID, POTASSIUM SALT	7758-01-2	CAR	
BROMINE	7758-01-2	CAR	
BUTADIENE, 1,3-	7726-95-6	INH	YES
BUTANAMINE, N-BUTYL-N-NITROSO-1,4-	106-99-0	CAR/RT	
BUTANE, (+-)-1,2,3,4-DIEPOXY-	298-18-0	CAR/INH	YES
BUTANE, 1,2-EPOXY-	106-88-7	CAR	
BUTANEDIOL, DIMETHANESULFONATE, 1,4-	55-98-1	CAR	
BUTEN-2-ONE, 3-	78-94-4	INH	YES
BUTENE, 1,4-DICHLORO-, (E)-,2-	110-57-6	INH	YES
BUTENE, 2,3-DICHLOROHEXAFLUORO-, 2-	303-04-8	INH	YES
BUTYRIC ACID	305-03-3	CAR	
CADMIUM	7440-43-9	INH/RT	YES
CADMIUM CHLORIDE	10108-64-2	CAR	
CADMIUM OXIDE	1306-19-0	INH	YES
CARBAMIC ACID, METHYL-, 2,3-DIHYDRO-2,2-DIMETHYL-7-BENZOFURANYL ESTER	1563-66-2	INH	YES
CARBAMOYL CHLORIDE, DIMETHYL-	79-44-7	CAR	
CARBON TETRACHLORIDE	56-23-5	CAR/RT	
CARBOCHLORIDIC ACID, METHYL ESTER	79-22-1	INH	YES
CARBOXYLIC ACID,3-beta,20-alpha-YOHIMBAN-16-beta-	50-55-5	CAR	
CARRAGEENAN, DEGRADED	9000-07-1	CAR	
CHLOROFORM	67-66-3	CAR	
CHLOROMETHYL, METHYL ETHER	107-30-2	CAR/INH	YES
CHLOROPRENE	126-99-8	RT/SKIN	YES
CHOROETHYLENE (VINYL CHLORIDE)	75-01-4	CAR/RT	
CHROMIC ACID, DIPOTASSIUM SALT	7789-00-6	CAR	
CHROMIC SULFATE	10101-53-8	INH	YES
CHROMIUM(VI) OXIDE (13)	1333-82-0	CAR	
CHRYSENE, 5-METHYL-	3697-24-3	CAR	
CHRYSENE, 6-NITRO-	7496-02-8	CAR	
CINNAMIC ACID, 3,4-DIHYDROXY-	331-39-5	CAR	
COBALT(2+) OXIDE	1307-96-6	CAR	
COBALT(II) CHLORIDE	7646-79-9	CAR	
COBALT, DI-mu-CARBONYLHEXACARBONYLDI-, (Co-Co)	10210-68-1	INH	YES
COUMARIN, 3-(alpha-ACETONYLBENZYL)-4-HYDROXY-	81-81-2	INH	YES
CYANOGEN BROMIDE	506-68-3	INH	YES
CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, GAMMA ISOMER	58-89-9	SKIN	YES
CYCLOHEXANE, NITRO-	1122-60-7	INH	YES
CYCLOHEXENE, 4-VINYL-1-	100-40-3	CAR	
CYCLOPENTA(c)FURO(3',2',4,5)FURO(2,3-h)(1)BENZOPYRAN-1,11-DIONE	1162-65-8	CAR	
CYCLOPENTADIENE, 1,2,3,4,5,5-HEXACHLORO-, 1,3-	77-47-4	INH	YES
CYCLOSPORIN A	59865-13-3	CAR	
DECABORANE(14)	17702-41-9	INH	YES
DECYL ALCOHOL	112-30-1	INH	YES
DIBENZ(a,h)ANTHRACENE	53-70-3	CAR	
DIBENZO-p-DIOXIN, 2,3,7,8-TETRACHLORO-	1746-01-6	CAR	

DIBROMO-3-CHLOROPROPANE,1,2-	96-12-8	CAR/RT	
DIETHYLAMINE, HYDROCHLORIDE	55-86-7	CAR	
DIMETHYLAMINE, N-NITROSO-	62-75-9	CAR/INH	YES
DIMETHYLAMINOAZOBENZENE, 4-	60-11-7	CAR	
DINITROGEN TETROXIDE	10544-72-6	INH	YES
DIOXANE, p-	123-91-1	CAR	
DIOXIN, 2,4,5-T- (TCDD)	1746-01-6	RT	
DIPROPIONATE, 9'-CHLORO-16-beta-METHYL-11-beta,17,21- TRIHYDROXY-, 17,21-	5534-09-8	INH	YES
DIPROPYLAMINE, N-NITROSO-	621-64-7	CAR	
DISULFIDE, DIMETHYL	624-92-0	INH	YES
ETHANE, 1,1,1-TRICHLORO-2,2-BIS(p-CHLOROPHENYL)-	50-29-3	CAR/RT	
ETHANE, 1,1,1-TRICHLORO-2,2-BIS(p-METHOXYPHENYL)-	72-43-5	CAR	
ETHANE, 1,1,2,2-TETRACHLORO-	79-34-5	CAR	
ETHANE, 1,1,2-TRICHLORO-	79-00-5	CAR	
ETHANE, 1,2-DIBROMO-	106-93-4	CAR/RT	
ETHANE, 1,2-DICHLORO-	107-06-2	CAR	
ETHANE, HEXACHLORO-	67-72-1	CAR	
ETHANE, IODO-	75-03-6	INH	YES
ETHANEDIAMINE, 1,2-	107-15-3	INH	YES
ETHANOL, 2-CHLORO-	107-07-3	INH	YES
ETHANOL, 2-FLUORO-	371-62-0	INH	YES
ETHANOL, N-NITROSOIMINODI-	1116-54-7	CAR	
ETHER, BIS(2-CHLOROETHYL)	111-44-4	CAR	
ETHER, METHYL CHLOROMETHYL	107-30-2	CAR	
ETHYL ISOCYANATE	109-90-0	INH	YES
ETHYLAMINE, N-METHYL-N-NITROSO-	10595-95-6	CAR	
ETHYLENE OXIDE	75-21-8	CAR/RT	
ETHYLENE, 1,1-DICHLORO-2,2-BIS(p-CHLOROPHENYL)-	72-55-9	CAR	
ETHYLENE, BROMO-	593-60-2	CAR	
ETHYLENE, TETRACHLORO-	127-18-4	CAR	
ETHYLENE, TRICHLORO-	79-01-6	CAR/RT	
ETHYLENEIMINE	151-56-4	CAR	
FLUORANTHENE, 3-NITRO-	892-21-7	CAR	
FORMALDEHYDE	50-00-0	INH/CAR/RT	YES
FORMIC ACID, CHLORO-, ALLYL ESTER	2937-50-0	INH	YES
FORMIC ACID, CHLORO-, ETHYL ESTER	541-41-3	INH	YES
FURALDEHYDE, 5-NITRO-, SEMICARBAZONE, 2-	59-87-0	CAR	
GLUCOPYRANOSE, 2-DEOXY-2-(3-METHYL-3-NITROSOUREIDO)-, D-	18883-66-4	CAR	
GLUCOPYRANOSIDE, (METHYL-ONN-AZOXY)METHYL-, beta-D-	14901-08-7	CAR	
GLUTAMIC ACID	59-05-2	CAR	
GOLD, (1-THIO-D-GLUCOPYRANOSATO)-	12192-57-3	CAR	
GUANIDINE, 1-METHYL-3-NITRO-1-NITROSO-	70-25-7	CAR	
HYDANTOIN, 1-((5-NITROFURFURYLIDENE)AMINO)-	67-20-9	CAR	
HYDANTOIN, 5,5-DIPHENYL-	57-41-0	CAR	
HYDRAZINE	302-01-2	CAR	
HYDRAZINE, 1,1-DIMETHYL-	57-14-7	CAR	
HYDRAZINE, METHYL-	60-34-4	INH	YES
HYDROGEN PEROXIDE, 30%	7722-84-1	CAR	
HYDROQUINONE	123-31-9	CAR	
IMFERON	9004-66-4	CAR	
IMIDAZOLE-4-CARBOXAMIDE, 5-(3,3-DIMETHYL-1-TRIAZENO)-	4342-03-4	CAR	
IMIDAZOLIDINETHIONE, 2-	96-45-7	CAR/RT	
IMIDAZOLIDINONE, 1-((5-NITROFURFURYLIDENE)AMINO)-, 2-	555-84-0	CAR	
IOSYANATE, T-BUTYL	7188-38-7	INH	YES

IRON PENTACARBONYL	13463-40-6	INH	YES
ISOCYANATE, N-BUTYL	111-36-4	INH	YES
ISOCYANIC ACID, 3,4-DICHLOROPHENYL ESTER	102-36-3	INH	YES
ISOCYANIC ACID, METHYL ESTER	624-83-9	INH	YES
ISOCYANIC ACID, METHYLENE(3,5,5-TRIMETHYL-3,1-CYCLOHEXYLENE) ESTER	4098-71-9	INH	YES
ISOCYANIC ACID, METHYLENEDI-4,1-CYCLOHEXYLENE ESTER	5124-30-1	INH	YES
ISOCYANIC ACID, METHYLENEDI-p-PHENYLENE ESTER	101-68-8	INH	YES
ISONICOTINIC ACID HYDRAZIDE	54-85-3	CAR	
ISOPROPYL ETHANE FLUOROPHOSPHONATE	1943-83-5	INH	YES
LACTONITRILE	78-97-7	SKIN	YES
LACTONITRILE, 2-METHYL-	75-86-5	SKIN	YES
LEAD	7439-92-1	RT	
MALEIMIDE, N,N'-(m-PHENYLENE)DI-	3006-93-7	CAR	
MANGANESE	7439-96-5	RT	
MANGANESE, (ETHYLENEBIS(DITHIOCARBAMATO))-	12427-38-2	CAR	
MANGANESE, TRICARBONYL METHYLCYCLOPENTADIENYL	12108-13-3	INH	YES
MELAMINE	108-78-1	CAR	
MENTHA-6,8-DIEN-2-ONE, (S)-(+)-, p-	2244-16-8	SKIN	YES
MERCURY	7439-97-6	RT	
MERCURY, CHLOROMETHYL-	115-09-3	CAR	
METHANE, BROMO-	74-83-9	CAR	
METHANE, BROMODICHLORO-	75-27-4	CAR	
METHANE, CHLORODIBROMO-	124-48-1	CAR	
METHANE, CHLOROFLURO-	593-70-4	CAR	
METHANE, DICHLORO-	75-09-2	CAR	
METHANE, TETRANITRO-	509-14-8	CAR/INH	YES
METHANE, TRIBROMO-	75-25-2	CAR	
METHANE, TRICHLORONITRO-	76-06-2	CAR	
METHANESULFENYL CHLORIDE, TRICHLORO-	594-42-3	INH	YES
METHANESULFONIC ACID, ETHYL ESTER	62-50-0	CAR	
METHANESULFONIC ACID, METHYL ESTER	66-27-3	CAR	
METHANOINDAN, 1,2,4,5,6,7,8,8-OCTACHLORO-3a,4,7,7a-TETRAHYDRO-, 4,7-	57-74-9	CAR	
METHANOL, (METHYL-ONN-AZOXY)-, ACETATE (ester)	592-62-1	CAR	
METHYL ISOTHIOCYANATE	556-61-6	INH/SKIN	YES
METHYL SULFIDE	75-18-3	INH	YES
MONOCROTALINE	315-22-0	CAR	
MORPHOLINE	110-91-8	CAR	
MORPHOLINE, N-NITROSO-	59-89-2	CAR	
N-PROPYL ISOCYANATE	110-78-1	INH	YES
NAPHTHALENEDIAMINE, 1,5-	2243-62-1	CAR	
NAPHTHALENEDISULFONIC ACID, 1,3-	6459-94-5	CAR	
NAPHTHALENEDISULFONIC ACID, 2,7-	2429-74-5	CAR	
NAPHTHALENEDISULFONIC ACID, 3-HYDROXY-4-((4-SULFO-1-NAPHTHYL)AZO)-, TRISODIUM SALT, 2,7-	915-67-3	CAR	
NAPHTHALENEDISULFONIC ACID, 3-HYDROXY-4-(2,4-XYLYLAZO)-, DISODIUM SALT, 2,7-	3761-53-3	CAR	
NAPHTHOL, 1-(2,4-XYLYLAZO)-, 2-	3118-97-6	CAR	
NAPHTHOL, 1-(o-TOLYLAZO)-, 2-	2646-17-5	CAR	
NAPHTHOL, 1-(PHENYLAZO)-, 2-	842-07-9	CAR	
NAPHTHYLAMINE, 2-	91-59-8	CAR	
NAPHTHYLAMINE, alpha-	134-32-7	CAR	
NAPHTHYLAMINE, beta-	91-59-8	CAR	
NAPHTHYLAMINE, N-PHENYL-, 2-	135-88-6	CAR	
NAPHTHYLAMINE,1-	134-32-7	CAR	

NICKEL	7440-02-0	CAR	
NICOTINE	54-11-5	SKIN	YES
NICOTINE, SULFATE (21)	65-30-5	INH	YES
NITRIC ACID	7697-37-2	INH	YES
NITRIC OXIDE	10102-43-9	INH	YES
NITROBIPHENYL, 4-	92-93-3	CAR	
NITROBIPHENYL,4-	92-93-3	CAR	
NITROGEN DIOXIDE	10102-44-0	INH	YES
NITROSODIMETHYLAMINE, N-	62-75-9	CAR	
NITROUS ACID, SODIUM SALT	7632-00-0	INH	YES
NORBORNENE-2,3-DICARBOXYLIC ACID, 1,4,5,6,7,7-HEXACHLORO-, 5-	115-28-6	CAR	
OXABICYCLO(4.1.0)HEPTANE, 3-(EPOXYETHYL)-, 7-	106-87-6	CAR	
OXETANONE, 2-	57-57-8	CAR/INH	YES
PEROXYACETIC ACID	79-21-0	INH	YES
PHENOL	108-95-2	CAR/INH	YES
PHENOL, (1,1-DIMETHYLETHYL)-4-METHOXY-	25013-16-5	CAR	
PHENOL, 2,2'-METHYLENEBIS(3,4,6-TRICHLORO-	70-30-4	INH	YES
PHENOL, 4,4'-ISOPROPYLIDENEDI-	80-05-7	INH	YES
PHENOL, 4-AMINO-2-NITRO-	119-34-6	CAR	
PHENOL, p-CHLORO-	106-48-9	INH	YES
PHENOL, PENTACHLORO-	87-86-5	CAR/INH/SKIN	YES
PHENOTHIAZINE, 2-CHLORO-10-(3-(DIMETHYLAMINO)PROPYL)-, MONOHYDROCHLORIDE	69-09-0	INH	YES
PHENYLENEDIAMINE, 4-CHLORO-, m	5131-60-2	CAR	
PHENYLENEDIAMINE, 4-CHLORO-,o-	95-83-0	CAR	
PHOSPHINE, PHENYL-	638-21-1	INH	YES
PHOSPHONIC ACID, (2,2,2-TRICHLORO-1-HYDROXYETHYL)-, DIMETHYL ESTER	52-68-6	CAR	
PHOSPHONIC ACID, (2-CHLOROETHYL)-	16672-87-0	INH	YES
PHOSPHONIC ACID, DIMETHYL ESTER	868-85-9	CAR	
PHOSPHONIC DICHLORIDE, METHYL-	676-97-1	INH	YES
PHOSPHONIUM, TETRABUTYL-, BROMIDE	3115-68-2	INH	YES
PHOSPHONIUM, TETRABUTYL-, CHLORIDE	2304-30-5	INH	YES
PHOSPHORANE, PENTACHLORO-	10026-13-8	INH	YES
PHOSPHORIC ACID	7664-38-2	INH	YES
PHOSPHORIC TRIAMIDE, HEXAMETHYL-	680-31-9	CAR	
PHOSPHOROCHLORIDIC ACID, DIETHYL ESTER	814-49-3	SKIN	YES
PHOSPHOROCHLORIDOTHIOIC ACID, O,O-DIETHYL ESTER	2524-04-1	INH	YES
PHOSPHORODICHLORIDOTHIOIC ACID, O-ETHYL ESTER	1498-64-2	INH	YES
PHOSPHOROFLUORIDIC ACID, BIS(1-METHYLETHYL) ESTER	55-91-4	INH	YES
PHOSPHORUS CHLORIDE	7719-12-2	INH	YES
PHOSPHORUS OXIDE	1314-56-3	INH	YES
PHOSPHORYL CHLORIDE	10025-87-3	INH	YES
PHTHALIC ACID, BENZYL BUTYL ESTER	85-68-7	CAR	
PICOLINIC ACID, 4-AMINO-3,5,6-TRICHLORO-	1918-02-1	CAR	
PIPERIDINE, 1-NITROSO-	100-75-4	CAR	
PLATINUM(II), DIAMMINEDICHLORO-, cis-	15663-27-1	CAR	
PLUMBANE, TETRAETHYL-	78-00-2	CAR	
POLYCHLORINATED BIPHENYLS	1336-36-3	CAR	
POLYVINYL ALCOHOL	9002-89-5	CAR	
PROPANE, 1,2-DICHLORO-	78-87-5	CAR	
PROPANE, 1,2-EPOXY-	75-56-9	CAR	
PROPANE, 1,2-EPOXY-3-PHENOXY-	122-60-1	CAR	
PROPANE, 1-CHLORO-2,3-EPOXY-	106-89-8	CAR	
PROPANE, 2-NITRO-	79-46-9	CAR	

PROPANOL, 2,3-EPOXY-1-	556-52-5	CAR	
PROPANONE, 1,1,3-TRICHLORO-, 2-	921-03-9	INH	YES
PROPANONE, 1,3-DICHLORO-, 2-	534-07-6	INH	YES
PROPANONE, 1-CHLORO-, 2-	78-95-5	INH	YES
PROPENE, 1,3-DICHLORO-	542-75-6	CAR	
PROPENE, 1-CHLORO-2-METHYL-	513-37-1	CAR	
PROPENE, 3-CHLORO-2-METHYL-	563-47-3	CAR	
PROPENE-1,1-DIOL, 2-METHYL-, DIACETATE, 2-	10476-95-6	SKIN	YES
PROPYN-1-OL, 2-	107-19-7	SKIN	YES
PURINE, 6-((1-METHYL-4-NITROIMIDAZOL-5-YL)THIO)-	446-86-6	CAR	
PYRAZOLIDINEDIONE, 4-BUTYL-1,2-DIPHENYL-, 3,5-	50-33-9	CAR	
PYRENE	129-00-0	INH	YES
PYRENE, 1,3-DINITRO-	75321-20-9	CAR	
PYRENE, 1,6-DINITRO-	42397-64-8	CAR	
PYRENE, 1-NITRO-	5522-43-0	CAR	
PYRIDINE, 2,6-DIAMINO-3-(PHENYLAZO)-, MONOHYDROCHLORIDE	136-40-3	CAR	
PYROCATECHOL	120-80-9	CAR	
PYRROLE-2,5-DIONE, 1,1'-(4-METHYL-1,3-PHENYLENE)BIS-, 1H-	6422-83-9	INH	YES
PYRROLIDINE, 1-NITROSO-	930-55-2	CAR	
PYRROLIDINONE, 1-CYCLOHEXYL-, 2-	6837-24-7	INH	YES
QUINOLINE, 2-AMINO-3-METHYL-3H-IMIDAZO(4,5-f)	76180-96-6	CAR	
QUINOLINOL, 8-	148-24-3	CAR	
RESORCINOL, DIGLYCIDYL-	101-90-6	CAR	
SELENIC ACID, DISODIUM SALT	13410-01-0	CAR	
SERINE, DIAZOACETATE (ESTER)	115-02-6	CAR	
SILANETRIAMINE, N,N,N',N',N",N"-HEXAMETHYL-	15112-89-7	INH	YES
SILICA, AMORPHOUS FUMED	112945-52-5	CAR	
SILICA, CRYSTALLINE - QUARTZ	14808-60-7	CAR	
SODIUM AZIDE	26628-22-8	SKIN	YES
SODIUM CHLORITE	7758-19-2	CAR	
STILBENEDIOL, alpha,alpha'-DIETHYL-, 4,4-	56-53-1	CAR	
STYRENE	100-42-5	CAR/RT	
SULFONE, METHYL VINYL	3680-02-2	SKIN	YES
SULFURIC ACID, DIETHYL ESTER	64-67-5	CAR	
SULFURIC ACID, DIMETHYL ESTER	77-78-1	INH	YES
SULFURYL CHLORIDE	7791-25-5	INH	YES
TANNIC ACID	1401-55-4	CAR	
TECRAETHYL DITHIOPYROPHOSPHATE	3689-24-5	INH	YES
TETRETHYL PYROPHOSPHATE	107-49-3	INH	YES
THIAZOLE, 2-AMINO-5-NITRO-	121-66-4	CAR	
THIOPHENE, 2,3,4,5-TETRACHLORO-	6012-97-1	INH	YES
THIOPHOSPHORYL CHLORIDE	3982-91-0	INH	YES
THIOPYROPHOSPHORIC ACID, TETRAETHYL ESTER	3689-24-5	INH	YES
TITANIUM CHLORIDE (TiCl4)	7550-45-0	INH	YES
TOLUENE, alpha,alpha,alpha-TRICHLORO-	98-07-7	INH	YES
TOLUENE, alpha-CHLORO-	100-44-7	INH	YES
TOLUENE-2,4-DIAMINE	95-80-7	INH	YES
TOLUIDINE, 4-(o-TOLYLAZO)-, o-	97-56-3	CAR	
TOLUIDINE, 5-NITRO-, o-	99-55-8	CAR	
TOXAPHENE	8001-35-2	CAR	
TRIAZIN-2(1H)-ONE, 4-AMINO-1-beta-D-RIBOFURANOSYL-, s-	320-67-2	CAR	
TRIAZINE, 2,4,6-TRIFLUORO-, s-	675-14-9	INH	YES
TRIAZINE, 2,4,6-TRIS(ALLYLOXY)-, s-	101-37-1	INH	YES
TRIAZINE, 2-CHLORO-4-ETHYLAMINO-6-ISOPROPYLAMINO-, s-	1912-24-9	CAR	

TRIAZOLE, 3-AMINO-, s-	61-82-5	CAR	
TRICHLOROACETYL CHLORIDE	76-02-8	CAR	
TRICHOHEC-9-ENE-3-alpha,4-beta,8-alpha,15-TETROL, 12,13-EPOXY-,	21259-20-1	INH	YES
TRIETHYLAMINE, 2,2',2"-TRICHLORO-, HYDROCHLORIDE	817-09-4	CAR	
UCON 50-HB-5100	9038-95-3	INH	YES
UNDECANOIC ACID, 11-AMINO-	2432-99-7	CAR	
URACIL, 5-(BIS(2-CHLOROETHYL)AMINO)-	66-75-1	CAR	
URACIL, 5-FLUORO-	51-21-8	CAR	
URACIL, 6-PROPYL-2-THIO-	51-52-5	CAR	
UREA, 1,1-DIMETHYL-3-(alpha,alpha,alpha-TRIFLUORO-m-TOLYL)-	2164-17-2	CAR	
UREA, 1-(2-CHLOROETHYL)-3-(4-METHYLCYCLOHEXYL)-1-NITROSO-	13909-09-6	CAR	
UREA, 1-(2-CHLOROETHYL)-3-CYCLOHEXYL-1-NITROSO-	13010-47-4	CAR	
UREA, 1-ETHYL-1-NITROSO-	759-73-9	CAR	
UREA, 2-THIO-	62-56-6	CAR	
UREA, 3-(p-CHLOROPHENYL)-1,1-DIMETHYL-	150-68-5	CAR	
UREA, N-METHYL-N-NITROSO-	684-93-5	CAR	
VALINOMYCIN	2001-95-8	SKIN	YES
XANTHEN-7-ONE, 7H-FURO(3',2',4,5)FURO(2,3-c)	10048-13-2	CAR	
XYLIDINE, 2,6	87-62-7	CAR	
ZINC, BIS(DIMETHYLDITHIOCARBAMATO)-	137-30-4	CAR/INH	YES

**note: If the literature indicates that a chemical which your are working with should be considered a PHS, but is not included on the 1995 PHS list, contact the Occupational Hygiene Division at 684-2794. This list is not all inclusive. It is a partial list of PHSs that the OESO believes likely to be used in the Duke University research and/or clinical laboratories.**

#### Criteria used to develop the 1996 PHS list:

A chemical is considered to be a carcinogen if:

- it has been evaluated by the International Agency for Research on Cancer (IARC) and found to be a carcinogen or potential carcinogen or:
- it is listed as a carcinogen or potential carcinogen in the *Annual Report on Carcinogens* by the National Toxicology Program (NTP) or:
- it is regulated by OSHA as a carcinogen

A chemical is considered to be acutely toxic by inhalation if it:

- has a median lethal concentrated (LC50) in air of 200 parts per million by volume or less of gas or vapor or two milligrams per liter when administered by continuous inhalation for one hour to albino rats weighing between 200 and 300 grams.

A chemical is considered to be acutely toxic when absorbed through the skin if:

- it has a median lethal dose (LD50) of 200 milligrams or less per kilogram of body weight when administered by continuous contact for 24 hours with bare skin of albino rabbits weighing between two and three kilograms each.

A chemical is considered to be a reproductive toxin if:

- it appears on the Florida State University Reproductive Toxin List (1995).