



THE OHIO STATE UNIVERSITY COLLEGE OF BIOLOGICAL SCIENCES  
CHEMICAL HYGIENE PLAN  
APPENDIX H CLASSES OF CARCINOGENIC COMPOUNDS

\* DENOTES SELECT CARCINOGEN

**Alkylating agents: *a*-halo ethers**

*\*bis(chloromethyl)ether*

*\*methyl chloromethyl ether*

**Alkylating agents: sulfonates**

*\*1,4-butanediol dimethanesulfonate*

diethyl sulfate

dimethyl sulfate

ethyl methanesulfonate

methyl methanesulfonate

methyl trifluoromethanesulfonate

1,3-propanesultone

**Alkylating agents: epoxides**

*\*ethylene oxide*

diepoxybutane

epichlorohydrin

propylene oxide

styrene oxide

**Alkylating agents: aziridines**

*\*ethylenimine*

2-methylaziridine

**Alkylating agents: diazo, azo, and azoxy compounds**

4-dimethylaminoazobenzene

**Alkylating agents: electrophilic alkenes and alkynes**

*\*acrylonitrile*

acrolein

ethyl acrylate

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**Acylating agents**

\**b*-*propiolactone*  
b-butyrolactone  
dimethylcarbamoyl chloride

**Organohalogen compounds**

\**1,2-dibromo-3-chloropropane*  
\**mustard gas (bis(2-chloroethyl)sulfide)*  
\**vinyl chloride*  
carbon tetrachloride  
chloroform  
3-chloro-2-methylpropene  
1,2-dibromoethane  
1,4-dichlorobenzene  
1,2-dichloroethane  
2,2-dichloroethane  
1,3-dichloropropene  
hexachlorobenzene  
methyl iodide  
tetrachloroethylene  
trichloroethylene  
2,4,6-trichlorophenol

**Hydrazines**

hydrazine (and hydrazine salts)  
1,2-diethylhydrazine  
1,1-dimethylhydrazine  
1,2-dimethylhydrazine

**N-nitroso compounds**

\**N-nitrosodimethylamine*  
N-nitroso-N-alkylureas

**Aromatic amines**

\**4-aminobiphenyl*  
\**benzidine (p,p'-diaminobiphenyl)*  
\**a-naphthylamine*  
\**b-naphthylamine*

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aniline  
*o*-anisidine (2-methoxyaniline)  
2,4-diaminotoluene  
*o*-toluidine

**Aromatic hydrocarbons**

*\*benzene*  
benz[a]anthracene  
benzo[a]pyrene

**Natural products (including anti-tumor drugs)**

adriamycin  
aflatoxins  
bleomycin  
cisplatin  
progesterone  
reserpine  
safrole

**Miscellaneous organic compounds**

*\*formaldehyde (gas)*  
acetaldehyde  
1,4-dioxane  
ethyl carbamate (urethane)  
hexamethylphosphoramide  
2-mitropropane  
styrene  
thiourea  
thioacetamide

**Miscellaneous inorganic compounds**

*\*arsenic and certain arsenic compounds*  
*\*chromion and certain chromium compounds*  
*\*thorium dioxide*  
beryllium and certain beryllium compounds  
cadmium and certain cadmium compounds  
lead and certain lead compounds  
nickel and certain nickel compounds  
selenium sulfide