



## Guidance Document

### Carcinogenic Substances

#### Alkylating agents

##### a-Halo ethers

- Bis(chloromethyl) ether
- Methyl chloromethyl ether

##### Sulfonates

- 1,4-Butanediol dimethanesulfonate (myleran)
- Diethyl sulfate
- Dimethyl sulfate
- Ethyl methanesulfonate
- Methyl methanesulfonate
- Methyl trifluoromethanesulfonate
- 1,3-Propanesultone

##### Epoxides

- Ethylene oxide
- Diepoxybutane
- Epichlorohydrin
- Propylene oxide
- Styrene oxide

##### Aziridines

- Ethylenimine
- 2-methylaziridine

##### Diazo, azo, and azoxy compounds

- 4-Dimethylaminoazobenzene

##### Electrophilic alkenes and alkynes

- Acrylonitrile
- Acrolein
- Ethyl acrylate

#### Hydrazines

##### Hydrazine (and hydrazine salts)

- 1,2-Diethylhydrazine
- 1,1-Dimethylhydrazine
- 1,2-Dimethylhydrazine

#### N-Nitroso compounds

- N-Nitrosodimethylamine
- N-Nitroso-N-alkylurea

#### Aromatic amines

- 4-Aminobiphenyl
- Benzidine (4, 4'-diaminobiphenyl)
- a-Naphthylamine
- b-Naphthylamine
- Aniline
- o-Anisidine(2-methoxyaniline)
- 2,4-Diaminotoluene
- o-Toluidine

#### Aromatic hydrocarbons

- Benzene
- Benz[*a*]anthracene
- Benzo[*a*]pyrene

#### Natural products (including antitumor drugs)

- Adriamycin
- Aflatoxins

**Acylating agents**

b-Propiolactone  
b-Butyrolactone  
Dimethylcarbamyl 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

Bleomycin  
Cisplatin  
Progesterone  
Reserpine  
Safrole

**Miscellaneous organic compounds**

Formaldehyde (gas)  
Acetaldehyde  
1,4-Dioxane  
Ethyl carbamate (uret  
Hexamethylphosphor  
2-Nitropropane  
Styrene  
Thiourea  
Thioacetamide

**Miscellaneous inorganic compounds**

Arsenic and certain arsenic compounds  
Chromium 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

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