

SOUTHWEST

TENNESSEE COMMUNITY COLLEGE

Potential Effects of Some Laboratory Chemicals

Chemical	Effects
Sulfur dioxide	Extremely toxic, severe burns to lungs
Carbon disulfide	Irritates skin, eyes, nose, respiratory tract; high concentrations affect nervous system causing unconsciousness and even death
Nitrogen	Can asphyxiate because it reduces oxygen in air; termed "asphyxiating gas"
Carbon tetrachloride	Damaging to liver even at exposure level with no discernible odor
Hydrogen cyanide	Absorbed through skin easily; most rapidly acting of all known poisons
Hydrogen sulfide	Can desensitize sense of smell and irritate respiratory tract; concentrations above 700 ppm cause breathing to stop
Carbon monoxide	Prevents oxygenation of blood
Nitric acid	Can produce lung edema, eventually suffocating victim from fluid accumulation
Trichloroacetic acid	Severely caustic; respiratory tract irritant
Acetic acid	Severely caustic; chronic exposure to vapor can lead to chronic bronchitis
Benzidine	Absorbed rapidly through skin; salts can cause cancer
Phenol	Corrosive to skin; contact dermatitis even from dilute solutions
Ethers	Depression of central nervous system
Benzene	Acts on bone marrow to destroy production of blood cells associated with some leukemias
Dry ice/CO₂	In closed space can cause asphyxiation; extreme cold can injure skin
