



CHEMICAL RISK

MANAGEMENT

PROFESSIONAL SERVICES

CHEMICAL HAZARDS

- Workplace and indoor air quality; air sampling and analysis; air pollution studies
 - Gases (carbon monoxide, formaldehyde, chlorine, acids, NO_x, H₂S, SO₂, NH₃ *etc.*)
 - Vapors (paint, degreasing solvents, hydrocarbons, mercury, adhesives, *etc.*)
 - Fumes (welding, soldering, metal melting, lead, zinc, copper, cadmium, *etc.*)
 - Smoke (oil, combustion, diesel and automotive exhaust emissions, *etc.*)
 - Mists (oil, cutting fluids, acids/caustics, machining, spray finishing, *etc.*)
 - Biological aerosols (bacteria, fungi, molds, pollen, endotoxins, *etc.*)
 - Dusts (silica, lead, paint, grinding, polishing, buffing, plastics, *etc.*)
 - Fibers (asbestos, fibrous glass, mineral wool, cotton, *etc.*)
- Hazardous and toxic material handling, processing, storage, and disposal; chemical safety engineering (asbestos, cyanides, PCBs, mercury, lead, solvents, isocyanates, pesticides, carcinogens, hazardous waste, reproductive hazards, teratogens, explosives, flammables, inherently hazardous process safety, *etc.*)
- Ventilation system evaluation and air handling system engineering, design, preventative maintenance programs; exhaust hood design; air supply systems; ventilation recirculation
- Building-related illness and indoor air quality investigations and remediation
- Potable water evaluation; sanitation and plumbing cross connections
- Toxicological evaluation of industrial and household chemicals
- Industrial and commercial product chemical hazard risk analysis
- Laboratory analysis for material hazards and toxic properties
- Occupational and environmental chemical disease evaluations
- Chemical contact and sensitization dermatitis investigations
- Biochemical analysis of occupational chemical exposures
- Odor evaluation and control

PHYSICAL AGENTS

- Noise exposure studies; OSHA hearing conservation program compliance evaluation
- Noise abatement engineering feasibility studies; community noise evaluations
- Workplace thermal comfort: heat and cold stress and strain, humidity

- Vibration evaluation: whole body and segmental
- Illumination and workplace lighting studies
- Ionizing and non-ionizing radiation

ERGONOMIC STRESSES

- Anatomical, anthropometric, human factors, and biomechanical evaluations
- Tool evaluation, equipment design, workplace layout. Office optimization
- Manual material handling operations
- Physical work tolerance analysis
- Video display terminals

BIOLOGICAL AGENTS

- Microbial contamination (residential environments, potable water, coolants, metalworking fluids, air handling, plumbing cross connections, infectious disease control, bioaerosols)
- Pest control (insects, rodents, birds, vermin, mites, *etc.*), agricultural sanitation
- Plant sanitation and workplace housekeeping, temporary labor camps
- Food handling and storage practices; bacteria, mold and fungi, protozoans, viruses, algae

OTHER PROFESSIONAL SERVICES

- Comprehensive industrial hygiene studies (industrial plant audits, research, program reviews and implementation)
- Compliance assurance for OSHA/State occupational health and safety regulations
- Design and turn-key of plant & corporate industrial hygiene training programs
- Development of hazard communication (“right-to-know”) training programs
- Personal protective equipment selection, prescription, and evaluation

respirators	protective clothing	ear plugs, muffs
gloves	safety gear	eye protection
- Hazard warning labels: design, preparation, evaluation, readability, testing
- Expert witness testimony, forensics, toxic tort, dramshop, consumer product evaluations
- Occupational health hazard education and industrial hygiene training
- Control of occupational and environmental disease and product design safety factors
- Evaluation and preparation of material safety data sheets
- Industrial hygiene and toxicology literature searches
- Chemical product hazard liability determinations
- Evaluation of industrial hygiene work practices
- Employee/employer health and safety training
- Industrial and product safety engineering
- Fire, explosion, and burn injury forensics

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