



Our chemistry expertise is dedicated to solving complex problems related to chemical products and chemical safety, including technical issues associated with litigation, new product development, accident investigations, intellectual property disputes, materials and chemical testing, and chemical/materials health, safety and environmental management. Addressing the full life cycle of chemicals, we have tackled investigations ranging from the manufacturing of raw materials through the disposal / recycling of the chemicals. We have also addressed the impact of chemicals within systems such as refrigerants, fuels, and lubricants.

Our expertise extends to the environmental aspects of chemicals such as chemical contamination and air quality. We also provide scene documentation using the latest technology.

Problem solving techniques have been applied to projects involving polymers, petrochemicals, biofuels, coatings, catalysts, refrigerants, adsorbents, corrosion, pharmaceuticals, agrochemicals, and construction materials.

Services

- Polymers and plastics failure analysis
- Qualitative and quantitative chemical analysis
- Coatings and surface analysis
- Materials failure analysis
- Chemical release investigations
- Indoor air quality investigations
- Environmental science and remediation
- Agrochemicals
- Pharmaceuticals
- Water contamination and treatment
- Regulatory compliance (OSHA, EPA, USDA, Homeland Security)
- Biochemicals and bioprocesses
- Food safety
- Intellectual property litigation support
- Aerial (Drone / UAS) inspections and laser scanning for scene documentation



Practice Area Leaders

Chemistry and Chemicals

Michael G. Koehler, Ph.D. – Principal Scientist, Chemistry



Dr. Koehler performs investigations and failure analyses from a chemistry and materials science perspective. His experience crosses a broad range of chemicals and materials including polymers and plastics, coatings, fuels, catalyst, agrochemicals, refrigerants, filtration media, membranes, and pharmaceuticals. Dr. Koehler's technical expertise involves the complete cradle-to-grave life cycle of products including the design, manufacturing, transportation, application, toxicity, failure analysis, and disposal. His application experience include aerospace and vehicle materials, commercial and home appliances, indoor air quality, air management systems, transportation fuels, fire investigations, and environmental catalysts.

Louis J. DeFilippi, Ph.D. – Senior Scientist, Biochemistry / Environmental



Dr. DeFilippi performs investigations and analyses from a chemistry, biochemistry, and microbiology standpoint. He combines these scientific approaches and analyses with an understanding of OSHA, EPA and USDA regulations, as well as environmental processes, to draw his conclusions. Dr. DeFilippi specializes in a number of diverse areas, including regulatory compliance, patent infringement, safe operation of chemical, biochemical (enzymatic) and microbiological (fermentative) process and ammonia refrigeration, groundwater contamination and bioremediation. He is experienced in worker safety, accident prevention, analysis, measurements and data workup.