

Toxicologist Job Description

- Design and carry out laboratory experiments to evaluate the chemical substances, drugs or other compounds
- Analyze and make sense of data from toxicological studies, whether animal or human studies
- Assess the health and environmental risk linked to exposure to toxic substances
- Work cooperatively with scientists, researchers, and regulatory agencies to ensure adherence to safety standards and regulations
- Provide expert testimony and consultation in legal proceedings associated with toxic exposure or product liability cases
- Evaluate incidents involving toxic substances and then reporting on degree of contamination or exposure
- Perform risk assessment and come up with mitigation strategies to reduce impact of toxic substances
- Contribute to public health policies associated with toxic substance exposure
- Take part in developing and reviewing product safety labels and warning statements
- Help with developing new testing methods and techniques for better toxicological results in terms of accuracy and efficiency
- Develop and execute testing protocols and methodologies to make results are accurate and reliable
- Prepare extensive reports and technical documentation showing toxicological finding and recommendations
- Offer training and education to healthcare professionals, policymakers, and the public on the potential health effects of toxic exposures
- Design and execute quality control course of action to ensure the integrity and reliability of toxicological data
- Inquire into adverse event reports associated with chemical or pharmaceutical products and then carry out analysis

- Help in the planning and conduct of post-market surveillance studies to investigate the real-world safety of drugs and other chemicals
- Work in sync with multidisciplinary teams, ranging from clinicians, epidemiologists, to environmental scientists, to assess human health impacts of toxic exposures
- Stay up-to-date on the latest scientific literature and regulatory guidelines that covers the scope of toxicology and risk assessment
- Establish and confirm new analytical methods for the detection and quantification of chemical contaminants in several matrices
- Take part in the creation of safety data sheets and other hazard communication materials for industrial and consumer products
- Assist in the setup of occupational exposure limits and other workplace safety standards for hazardous substances
- Make use of advanced statistical and computational techniques to model dose-response relationships and characterize the uncertainty in toxicological risk assessments
- Take part in the development and authentication of high-throughput screening approaches to efficiently ascertain the toxicological potential of large chemical libraries.