The federal government is investing heavily in the development of nanotechnology as a driver of economic growth. Colleges and universities are at the forefront in conducting research and developing new applications using nanotechnology. The very properties that entice researchers and scientists to nanomaterials also present potential environmental, health and safety challenges. Because of the critical role being played by colleges and universities in the research and development of nanomaterials, college and university laboratories could be among the first workplaces in which the effects of such exposure are identified. This article first discusses potential exposure risks associated nanomaterials and the associated risks of liability that could result from a failure to assess potential exposure risks. The article then discusses applicable OSHA regulations, as well as recent actions by NIOSH to establish Recommended Exposure Limits for titanium dioxide and to propose such limits for carbon nanotubes and carbon nanofibers. Finally, the article proposes a process that colleges and universities can utilize to assess and address potential risks associated with nanomaterials.