Risk Assessment Form (3)

Must be completed before experimentation.

Student's Name(s) Timothy Liu

Title of Project Synthesis and Analysis of a Novel Biodegradable Polyester Fiber Scaffold Derived from Poly(glycerol sebacate

To be completed by the Student Researcher(s) in collaboration with Designated Supervisor/Qualified Scientist: (All questions must be answered; additional page(s) may be attached.)

1. List all hazardous chemicals, activities, or devices that will be used; identify microorganisms exempt from pre-approval (see Potentially Hazardous Biological Agent rules).

   Chloroform; Tetrahydrofuran

2. Identify and assess the risks involved in this project.

   Acute chloroform toxicity results in impaired liver function, cardiac arrhythmia, nausea and central nervous system dysfunction; THF oxidizes readily, which can lead to instability and result in cytotoxicity.

3. Describe the safety precautions and procedures that will be used to reduce the risks.

   Carefully develop a list of all of the chemicals used and the quantities needed in an experiment, review the SDS for each chemical and evaluate any risk, keeping in mind the inexperience of the students. Fully explain and demonstrate any new procedures or techniques that will be introduced in the experiment. Ensure that all containers used for distribution are clearly and completely labeled with the name, formula, and concentration of the chemical. Chemical products will be turned in or disposed of properly.

4. Describe the disposal procedures that will be used (when applicable).

   All containers submitted for disposal are clearly labeled with the complete chemical name(s) of all waste in the container or product name if an MSDS is either submitted or available to EHS. Dry materials contaminated with chemicals (paper, rags, towels, wipes, or spill contaminated materials) must be doublebagged in heavy-duty plastic bags. All containers of chemically-contaminated dry materials will be securely shut and label the outside of any container clearly with descriptions of its contents and the chemical contaminants. Researchers must wear the appropriate personal protective equipment (PPE) and clothing. Gloves must be changed as soon as they are contaminated. Open-toed shoes or sandals are not allowed in the laboratory.

5. List the source(s) of safety information.

   Human Metabolome Database (HMDB); ILO International Chemical Safety Cards (ICSC); CAMEO Chemicals

To be completed and signed by the Designated Supervisor (or Qualified Scientist, when applicable):
I agree with the risk assessment and safety precautions and procedures described above. I certify that I have reviewed the Research Plan/Project Summary and will provide direct supervision.

Kening Lang
Designated Supervisor's Printed Name

Signature

07/03/19
Date of Review (mm/dd/yy)

Doctoral student, RPI
Position & Institution

langk2@rpi.edu
Phone or email contact information

4 Years of Organic Chemistry Lab Experience
Experience/Training as relates to the student's area of research