Risk Assessment Form (3)

Must be completed before experimentation.

Student's Name(s) Riya Patel

Title of Project Characterization and Performance of Next Generation Ultrafiltration Fouling-Resistant Polymeric and Lyocell Cellulose Nanofiber Wastewater Treatment Membranes

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).

   TEMPO- oxidized cellulsoe nanofibers, electrospun polyacrylonitrile, lyocell, purified wastewater (Riverhead Wastewater Treatment Plant), polyacrylate emulsions (PAE), and sodium hypochlorite bleach

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

   TEMPO- oxidized CNF: may cause mild respiratory irritation, avoid inhalation, ePAN scaffold: may cause mild eye, skin, respiratory and digestive tract irritation, Lyocell scaffold: may cause mild respiratory irritation, avoid inhalation, Purified wastewater: avoid any form of ingestion, wash hands thoroughly, clean up any spills immediately, Polyacrylate emulsions (PAE): may cause respiratory irritation, drowsiness or dizziness, Sodium hypochlorite bleach solution: may cause mild eye, skin, respiratory and digestive tract irritation, avoid prolonged exposure and ingestion/inhalation

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

   Personal protective equipment (labcoat, gloves, disposable face masks, and goggles) is to be worn at all times. Long pants, closed toed shoes and long hair tied back will be complied with. When using municipal wastewater, work solely under the fume hood while wearing personal protective equipment. Do not eat or drink while using chemicals listed above. Seek medical attention for any changes in health while exposed to these chemicals.

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

   1. All chemicals will be disposed in labelled and specific waste containers. For disposal, email HazWaste@stonybrook.edu for hazardous waste pickup.
   2. Purified wastewater will be disposed of in the sink after overnight sterilization with bleach.

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

   1. University of Maine- The Process Development Center
   2. American Polymer Standards Corporation
   3. Engineered Fibers Technology
   4. Town of Riverhead Sewer District - Wastewater Treatment Plant
   5. Fisher Scientific
   6. Stony Brook University's Environmental Health and Safety Department

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.

Mengying Yang	Mengying Yang	6/25/19
Designated Supervisor's Printed Name	Signature	Date of Review (mm/dd/yy)

Graduate Student: Stony Brook University	mengying.yang@stonybrook.edu/(631) 428-8702
Position & Institution	Phone or email contact information

Fifth year graduate student in the Hsiao Lab

Experience/Training as relates to the student's area of research