Standard Operating Procedure
General Laboratory Safety

Facility:	Polymer Reaction Engineering Laboratory Department of Chemical Engineering
Lab Director:	Kyu Yong Choi /Student: Yun Ju Jung
Scope:	This SOP details the Personal Protective Equipment (PPE) requirements for work in the Polymer Reaction Engineering Laboratory
Last Revision:	09/04/09

Experiment:

Bulk polymerization of MMA at low temperature

Procedures: for 7 samples

1. Prepare the oil bath system and increase the temperature
2. Prepare 7 vials in order to take it every sampling time
    a. Measure the weight of each vial including a cap
3. Make the mother solution: The amount of mother solution is 7 times of the amount of a sample in a vial

   Materials in one vial : methyl methacrylate, lauroyl peroxide, and N,N-dimethyl aniline.
4. Dole out the 3 ml of mother solution in each vial and weigh it in order to calculate the weight of monomer in each vial
5. Immerse these 7 vials in the prepared oil bath at 30 °C
6. Take one vial out of the bath every sampling time and add a very little amount of hydroquinone in it
7. Open the vial and pour the methanol into the solution to wash and precipitate the polymer
8. Filter the solution and get the wet polymer samples
    a. After filtering, gather the filtered waste in a waste container
9. Dry them in the vacuum overnight
10. Weigh them and calculate the conversions