



Stick to the Safer Stuff

Adhesives Use and Innovations in
Massachusetts

April 11, 2013
Continuing Education Conference, Session B
Sturbridge, MA
Toxics Use Reduction Institute ■ UMass Lowell



Agenda

- Who's In the Room
- Introduction to Adhesives
- Case Study – Moving Towards Safer Adhesives in the Footwear and Apparel Industry
- What's on the Horizon – On-going research into safer adhesive formulations at UMass Lowell



Who's In the Room?

- Who uses, or consults with companies that use, adhesives in their production process?
- What are the various applications in which you use adhesives?
- What are the toxic chemicals used in adhesives?



Adhesives Chemical Use Reported in MA

- **Solvents (19)**
 - Toluene, n-Hexane, MEK, Acetone, **Methylene Chloride**, Tetrahydrofuran, Methanol, Ethyl Acetate, Ethylene Glycol
- **Reaction Chemicals (12)**
 - Methyl Methacrylate, Diisocyanates, Adipic Acid, Ethylenediamine, Resorcinol
- **Phthalate Plasticizers (4)**
 - Di-Butyl, Butylbenzyl, Bis 2-Ethylhexyl, Di-n-Octyl
- **Flame Retardants (5)**
 - Deca BDE, Antimony compounds
- **Others**
 - including wastewater treatment chemicals




