

Chemistry Department

Standard Operating Procedure

Title: Solvent Stills

If a solvent still is placed in operation for continuous distilling to remove water or trace impurities a standard operating procedure must be established for each still. The SOP must contain at least the following information:

- 1) Who is qualified to operate the still.
- 2) Required gas flow rates if applicable.
- 3) Emergency contact information if the still is left operating unsupervised.
- 4) Emergency shut down procedures.
- 5) If the still contains a reactive material (i.e. sodium lead alloy, phosphorous pentoxide) this should also be noted on the SOP.
- 6) Location of the nearest fire extinguisher appropriate to put out a fire in the still.

A solvent still should never be run to dryness in the distillation pot. Leave a residue volume to avoid boiling to dryness. The residue in the still pot should be gathered, placed in a closed container, labeled, and sent to the department storeroom for disposal. If nothing other than solvent has been distilled (no desiccant material, or other reactive material) the container may be labeled as still pot residue from (name of solvent) distillation.