

Maintenance Checklist

Solvent System:

- **Check logbook**
 - Add up totals (every 2 weeks)
- **Inspect all lines, valves, fittings, and connections for mechanical integrity**
 - 3-month intervals
 - Replace damaged valves, fittings, and connections when needed
- **Refill Solvent**
 - when total solvent used is 12 L
 - Make sure to log the amount of solvent refilled after refilling
- **Check Ar tank**
 - Every 2 weeks
 - You need to replace when < 500 psi
- **When not in use, check valves are all closed**
 - Brief inspection every week
 - Make sure valves are turned in the closed position if not in use
- **Change pump oil**
 - 6-12 months

Glovebox Maintenance:

- **Water sensor cleaning**
 - every 3 months
- **Regeneration**
 - Every 6 months
- **Pump oil change**
 - 6-12 months
- **Filter change**
 - Every 12 months
- **Gas cylinder change**
 - As needed when it is low

TOSOH GPC Maintenance:

- **Wash blocks cleaning**
 - Every 2 weeks
- **Solvent NMR Check**
 - After running 50-100 samples
- **Solvent filtration and refill**
 - Depend on the condition of solvent

- **Calibration**
 - Every 6 months
- **Drierite change**
 - When the color changes to be pink
- **Turn off the LS detector and decrease the flow rate**
 - When the instrument is not measuring samples

Lyophilizer:

- **Change pump oil**
 - Every 6-12 months, dependent on usage, check oil gauge for color
 - Last completed: 05/2021
- **Vacuum refrigeration system condenser**
 - Every 12 months
- **Replacement of rubber drain tubing, or any of the rubber components**
 - As needed
- **Cleaning the chamber lid with soft cloth/sponge and a mild, non-abrasive soap**
 - As needed
- **Regrease sample valves**
 - As needed

Standalone DLS/SLS:

- **Turn laser and detector off**
 - After every use
- **Clean air intake filters**
 - Every 3-6 months
- **Calibrate instrument**
 - Every 6 months
 - Last completed: 07/2020

Synthesizer:

- **Flush system with pure DMF (only bottles used) and then nitrogen purge all lines**
 - After every synthesis
- **Ensure integrity of amino acid bottle tops**
 - Before every synthesis
- **Archive database**
 - Every 6 months
 - Last completed: 07/2021
- **Amino acid bottle seal (orange septa) replacement**
 - As needed, check deformation against new septa

- **Amino acid bottle filter replacement**
 - As needed
- **Solvent bottle seal (O-ring) replacement**
 - As needed
- **RV O-ring replacement**
 - As needed

DMF GPC:

- **Change solvent**
 - Every 3-6 months
 - Last completed: 05/2021
- **Change pump head seals**
 - As needed
- **Change membrane filter**
 - As needed, when running pressure increases over normal pressure
- **Change purge valve frit**
 - As needed, when running pressure increases over normal pressure
- **Change active inlet valve cartridge**
 - As needed, when leaking