# SU8 Handling Protocol in Heidelberg 2 – Please read before using SU8 in Heidelberg2. Please follow all the protocols.

**Introduction**

- When working with SU8, it is important to remember that one person's resist is another's contaminant. One must make sure that each part of a process is accompanied by steps to prevent and eliminate SU8 contamination of lab equipment.
- Remember that SU8 is a flammable and toxic substance. Refer to the MSDS sheet for complete hazard information.
- Before working with SU8, make sure that you are double-gloved.
- Like all chemicals in the SNF, SU8 and SU8 developer should be transported in a metal cart. Return these items to the flammable chemical storage bin in which they are kept as soon as you are done using them. Do not leave them out unattended.
- Wafers must be transported in a personal cassette only. Using lab cassettes will contaminate them, any wafers subsequently placed in them, with SU8.
- Any personal equipment such as cassettes, glassware, or tweezers used to handle wafers coated with SU8 must be labeled with your Badger login and a warning of SU8 contamination. This equipment should only be used with wafers coated with SU8 and only in equipment approved for use with SU8.
- If you have any questions with regard to handling SU8 in the laboratory, please do not hesitate to ask Swaroop Kommera. Asking questions now will prevent mistakes in the future that could be costly, both in terms of time and money, to correct.
- Refer to http://www.microresist.de/en/ for more information on spin speeds. These are great starting points, but may require adjustment.
- **Wafers coated with SU8 can only be exposed on Heidelberg 2, karlsuss and evalign instruments. Use of any other exposure instrument (for example – Heidelberg 1, ASML) is strictly prohibited. Please contact Staff if you are not sure.**

**Exposure**

- **MUST DO - Make sure to change your gloves before using Heidelberg2. This is to ensure that there is no SU8 on your gloves and will not transfer it to surfaces on Heidelberg2.**
- **SU8 exposure is allowed only in Heidelberg2 and not in Heidelberg 1.**
- **Use only SU8 chuck for Heidelberg2 for SU8 wafers. DO NOT USE THE CLEAN CHUCK.**
- **Place the SU8 chuck on the Heidelberg2 table on cleanroom wipes**
- **Use the chuck switch to release the CLEAN chuck. Take the clean chuck out by making sure to pull the chuck horizontally and making sure that the glass on the bottom of the chuck is not scratched. Place the clean chuck on top of the optical enclosure in the tool on cleanroom wipes.**
- **Place the SU8 chuck carefully on the stage and toggle the chuck switch. Make sure the piston comes forward and holds the SU8 chuck in place.**
- **After SU8 spinning, please make sure the backside of the wafer is absolutely clean. Visually inspect the backside of your wafer or substrate**
- **If the wafer has SU8 on the backside, please clean it with a Q-tip and Acetone**
- **SU8 on wafers must be cured (prebaked) prior to use in any exposure instrument (for example Heidelberg 2). Never place an uncured wafer on any exposure chuck!**

- **Visually inspect the backside of your wafer to make sure it is absolutely clean. Place your wafer on the chuck. Make sure the vacuum is good before proceeding. If the vacuum is insufficient (<0.45 bar), please contact Swaroop Kommera.**
- **Once done, please replace the clean chuck on the stage following instructions above.**
- **Please clean the SU8 chuck with cleanroom wipe and IPA, dry it (blow dry if needed) and place it back on the optical enclosure on a cleanroom wipe.**

**Conclusion**

- When using shared lab equipment, make sure the area is clean and free of resist when you are finished.
- Report any problems encountered during your process with lab equipment on Badger.