

Soldering is a technique utilized widely in the construction of electronic components. It is also utilized in certain metalworking applications. There are numerous metallurgical formulations of solder available for specific applications. These formulations can generally be grouped into either Lead-Bearing or Lead-Free solders. Lead-Bearing solders for electrical applications generally are comprised of 60% Tin and 40% Lead. Equivalent Lead-Free solders vary in composition, but may be comprised of various percentages of Silver, Tin, Copper, Indium, Zinc, and Antimony.



It is important to note that both Lead and Silver are RCRA Listed Hazardous Wastes for disposal purposes. Lead (D008) and Silver (D011) become regulated when concentrations meet or exceed 5 PPM or 0.0005%. Due to this low concentration threshold, any waste that is generated during soldering work must be collected and managed as Hazardous Waste.

Requirements for Waste Containers:

- Containers used to collect soldering waste must be labeled with a Rowan University Hazardous Waste Label. All containers must be properly labeled as soon as any waste is added.
- Containers must be kept closed when waste is not actively being added.
 - Waste collection containers must be managed following [Satellite Accumulation Area](#) requirements.
- Do not dispose of normal trash items in the same container as solder contaminated hazardous waste.

Common Examples of Soldering Wastes:

- Scraps of unused solder/drops of solder that fell onto the work area.
- Solder dross.
- Sponges used to wipe soldering iron tips.
- Paper/Cloth towels used to clean work areas where soldering was performed.
- Items used to remove excess solder or flux residues.

Waste Electrical Components:

Circuit boards, electrical components, and other electronics waste are a form of [Universal Waste](#) and must not be disposed of in the trash. These items should be collected in a container with a Universal Waste Label.

Please contact Laboratory Safety at 856-256-5105 or LabSafety@Rowan.edu with any questions related to the proper management of solder wastes.