Safety tips for oil bath usage

When using an oil bath, take the following precautions:

- Always make sure the bath is on a flat and stable surface.
- Always make sure you know the location and usage of the nearest safety shower and eyewash in case you may need it. Ensure that they have been tested annually.
- Always wear proper personal protective equipment, or PPE, including a fireproof lab coat, gloves, safety glasses, long pants and closed toe shoes.
- Always work inside a properly operating fume hood with the hood sash as low as possible. The fume hood must be clean and uncluttered. Chemical fume hoods are not intended for storage. Remove chemical containers not in use and return to their proper storage locations.
- Avoid leaving the bath unattended whenever possible. Set temperature well below the oil's flash point if you must leave the bath unattended.
- Before using an oil bath, ensure that you have an appropriate spill kit readily accessible to safely contain spills. In the event of a spill, allow the oil to cool before cleaning.
- Change the oil if it becomes contaminated or shows signs of discoloration or turbidity.
- Clamp the reaction flask with an adjustable clamp. Avoid using small open reaction vessels to avoid spilling and contamination of bath.
- Dispose used oil as hazardous waste. **Do not dispose down the drains.**
- Do not overfill the bath.
- Hot oil can cause serious burns. Allow the oil to cool to near room temperature before handling or disassembly of the apparatus.
- Follow your lab specific training and any standard operating procedures established related to work with oil bath.
- Have the safety data sheet for the oil in the lab and make sure you know the contents of the same.
- Inspect water cooling apparatus to ensure water will not lead into the hot oil baths. Water can cause hazardous popping and splattering.
- Never overheat oil. Always know the safe working temperature of the oil you will be using and set the bath temperature below the flash point of the oil. Use a thermometer or thermistor to monitor the oil temperature.
- Observe for signs of smoke. Smoke indicates that the oil has been heated beyond its safe temperature range and can easily ignite.
- Prior to first time use of oil bath, a dry run or test experiment **must be** conducted with your principal investigator or supervisor.
- Store the oil in a place away from all heat sources. Make sure to label your oil container with the safe working temperature range as soon as you get the oil in the lab.

Questions? Contact ASU Environmental Health and Safetyat 480-965-1823 or email asuehs@asu.edu.

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