

Environment, Health and Safety

Hazard Alert

Title: Heat Gun Fire

Audience: Laboratory personnel

Incident Summary:

A graduate student was performing a recrystallization experiment in a fume hood. Upon applying heat using a heat gun to an open flask containing hexane, the graduate student heard glass cracking and observed their nitrile-gloved hand and the fume hood work surface on fire.

Investigation Findings:

- Hazard Assessment and Control Form (HACF) was missing controls.
- No Standard Operating Procedures (SOPs) were in place concerning the use of heat guns and other heating systems or involving recrystallization experiments.
- Graduate student was fatigued and making errors.



Actions Taken:

- HACF was updated and communicated.
- SOPs were developed for the use of heat guns and other heating systems and recrystallization experiments.
- Workers were reminded of the need to report to the workplace fit for work and report any reason they are not able to remain so.

Key Takeaways:

- Consider hazards and controls when designing your experiments – ensure they are part of your HACF and build them into the SOP.
- Ensure workers are fit for work throughout the work day.

Resources:

- Standard Operating Procedure [Standard](#) and [Template](#)
- Impairment in the Workplace – [A Leader's Guide](#)