



SAFETY ALERT

Unstable Chemical

RISK MANAGEMENT & SAFETY

Event: Unstable chemical
Date: December 2016
Category: Chemical Waste
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Contact RMS:

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Description:

A 1000 ml flask containing tetrahydrofuran (THF) over sodium metal was found in a hood after 4 unattended months. Noting that the potential peroxide formation and the presence of Sodium, an outside vendor was brought in to test, treat and contain the material.

The vendor's PPE included a ballistic style vest and Kevlar suit with an Self-contained Breathing Apparatus (SCBA) to protect against any potential blast.



Findings:

- After a group meeting presentation on time sensitive materials, a graduate student discovered the flask in a shared hood that is not regularly used.
- The graduate student estimated that the flask was there approximately 4 months.
- The original container of THF was not dated when received or opened.
- Other time sensitive chemicals were also not dated.
- The graduate student moved the flask forward and put it behind a blast shield.
- The container was very muddy looking and could not see presence of crystals or piece of sodium.
- The graduate student contacted RMS to help determine the best method to handle the container.
- The material tested negative for peroxides by the vendor.
- The vendor stabilized the container for RMS disposal.

Root Causes:

- The flask was put in another hood to quench at a later time and forgotten.
- The Handling of Time Sensitive Materials procedure was not followed in the lab.

Recommended Actions:

- Review the Safe Handling of Time Sensitive Chemicals procedure.
- Develop process to date all incoming time sensitive chemicals upon receipt and opening.
- Set up a regular schedule to quench reactive chemicals.