

SAFETY BULLETIN

Reactive Materials

Recent events have reminded us that cutting edge research often requires the use of highly reactive materials. Throughout KAUST reactive metals such as Potassium, Sodium, and alkali compounds are utilized for various research purposes.

Elements to consider include:

- Are there less reactive alternatives? (i.e. Sodium vs. Potassium)
- Standard Operating Procedures (SOP) need to be established **before** using reactive materials.
- Clear hoods of all unnecessary chemicals when cleaning, cutting, or adding reactive materials.
- When preparing and introducing reactive materials to research operations, blast shields should be kept between the operator and the reaction.
- Class D fire extinguishers (yellow) are heavy [25kg (55lbs)], users are encouraged to move them nearby **before** adding reactive metals and return them when finished.
- Allow glassware to fully dry before use. Small amounts of water or halogenated solvents may not be observed, but could be present in sufficient quantities to start a reaction
- Where possible use mineral oil or other high flashpoint materials to keep reactive materials from being exposed to air.
- Examine Potassium for yellow super peroxide formation every 6 months and prior to use

*We kindly appreciate your cooperation in following this Safety Bulletin
Doing so will benefit all the Research Community*

