SAFETY BULLETIN

جامعة الملك عبدالله للعلوم والتقنية
King Abdullah University of Science and Technology

Experiments Involving Potentially Explosive Reactions

Purpose of the safety bulletin: Inform personnel of procedures to follow when conducting experiments that involve potentially explosive chemicals or reactions. Whenever possible, minimize conducting experiments that involve potentially explosive chemicals or reactions.

Weighted safety shields are stocked in the warehouse. Order them through the chemical warehouse catalog: Part #3000007947.

Researchsafety@kaust.edu.sa

Potentially Explosive Reactions

- Always review research protocols carefully to identify potentially explosive chemicals and reactions.
- All experiments involving potentially explosive chemicals and reactions must first be approved by the Principal Investigator.
- Do not scale up experiments without prior approval of the Principal Investigator. Exercise extreme caution when procedures are scaled up. Scale initial procedures using potentially explosive chemicals or reactions as small as is feasible.
- Be aware of chemicals that can explode when concentrated to dryness or can cause explosive reactions with other chemicals – such as hydrogen peroxide, oxidizers, and peroxide forming chemicals. Review chemical container labels and Material Safety Data Sheets for more information.
- Always wear proper personal protective equipment - safety goggles in combination with a face shield, gloves, and a lab coat.
- Always conduct potentially explosive experiments in a fume hood with the fume hood sash placed at the lowest level. The fume hood sash does NOT provide blast protection, but provides a secondary barrier when used in COMBINATION with a weighted safety shield. ALWAYS use a safety shield when working with any potentially explosive chemicals or reactions.
- Clearly identify the experiment by placing a prominent sign in a visible location and notify your coworkers of any potential explosion hazards.