

# SAFETY ALERT!

## Hot Plate Accident

An ASU student was recently injured in a teaching lab in an accident involving a Corning® Model PC-220 Hot Plate/Stirrer (Product #6795-220). The unit involved had a 4 x 5 Inch Top and was being used in a fume hood to perform “Synthesis of Triphenylmethanol from a grignard reagent” from Introduction to Organic Laboratory Techniques, A Microscale Approach 4th Edition, Pavia, D; Lampman, G; Kriz, G; Engel, R; Thomson Brooks/Cole, 2007, page 317-324. There were two (2) open beakers on the hotplate containing a total of approximately 30 milliliter of isopropyl alcohol being heated when an apparent explosion resulted in pieces of the ceramic top being propelled at the student causing abrasions to the face and hands. The student was wearing safety goggles when the incident occurred. This likely prevented potential eye injuries. There was no glass sash between the student and the hot plate during the incident.

Currently the ASU Environmental Health & Safety (EH&S) Department and the ASU Chemistry Department are working together on the investigation to determine the causes of this accident. In the interim, this information is being shared with the university community for awareness of potential concerns with this Hot Plate/Stirrer. Additional information will follow the completion of this investigation. Please share this information with university employees who may use a Hot Plate/Stirrer.

### What should you do?

At this time we are asking Hot Plate/Stirrer users to examine their equipment and determine if this specific model and product number are in use and determine if it is feasible to use an alternative model or method until this investigation is complete. If it is not feasible to remove this equipment from service, it is recommended that they be used only with a laboratory fume hood sash closed as much as feasible and still allowing proper function of the fume hood. Please advise EH&S of the impact this will have on your operations.

Note: Once EH&S and the Department of Chemistry have completed this investigation we will follow and advise if there are any restrictions related to the continued use of this particular hot plate.

### Where to go for more information?

EH&S (480) 965-1823



New Corning Hot Plate/Stirrer  
Model PC-220, Product #6795-220

## **Warnings**

- Always wear safety glasses and other appropriate protection when operating this equipment
- Keep the Pyrocerm top plate clean. Use non-abrasive cleaner. Spills may damage the top and lead to thermal failure. Unplug the unit and remove spills promptly. Should the top plate become damaged by etching, scratching or chipping, replace the top plate and element assembly immediately using complete assembly and instructions provided by the manufacturer.
- Do not immerse the unit for cleaning.
- Do not heat or stir volatile materials.
- Do not use foil, metal container, large heavy wall glass containers, fiberglass pads or other insulating materials on the top of the unit when heating. Heat settings above 5 are not recommended for sand bath applications.
- Do not modify or substitute the grounded power plug. Use only power cords supplied by the manufacturer. Use only properly grounded outlets to avoid shock hazard.
- Do not modify the unit electrically or mechanically as personal injury or product damage may occur.
- Do not use ring stand to support unit on lattice or for support of heavy loads. Gross weight on top of any unit should not exceed 25 lbs.
- Not explosion or spark proof.
- Not for industrial use. These units are designed for use in laboratory environments by persons knowledgeable in safe laboratory practices.
- Do not use equipment in a manner other than stated in Operating Conditions (page 3) since the protection provided by the equipment may be impaired.
- Do not turn heat or stir knobs counterclockwise from the “0” or off position.