IMPORTANT
INSTRUCTIONS & INITIAL PREPARATION

THE FOLLOWING MUST BE PERFORMED TO ENSURE PROPER FUNCTION OF YOUR NEW DEWAR.

1. **Wash Dewar.**
   The inside of a Dewar must be clean, dry and free of any contaminates! We recommend washing it using a dish brush with hot soapy water and rinsing with Distilled or DI water. Avoid using Laboratory brushes that have metal handles. The metal may scratch the glass and weaken the Dewar. Dry completely with a lint free towel.

2. **Chill or Preheat Dewar.**
   LN2 will boil rapidly until Dewar has been chilled. It is highly advisable to prechill or preheat any vacuum-insulated glass vessel before filling with extremely hot or cold liquids. Fill the Dewar partially with LN2 and cover. After 30 to 45 seconds, pour out LN2 while turning the Dewar to ensure that all inside walls of the Dewar have been chilled. Repeat above steps until some frost is visible on inside of Dewar when it is empty.

   Keep in mind that the Boiling Point for LN2 is **-320.5°** F and the Dewar is usually at room temperature, **72°** to **73° F.** Drastic changes to the temperature (thermal shocking) can cause damage to the Dewar so pour slowly.

3. **Refill Dewar and Cover.**
   Please note that LN2 will become contaminated with repeated use in testing Dewars. It can cause rapid boiling, thus giving the impression that the Dewar is defective.

Note: Pope cylindrical Dewars with exposed glass come with a protective plastic mesh. We recommend that this mesh be left on the Dewars because of the added protection it provides. There is no mesh on Dewars with extended aluminum bases.

Signs of Defective Dewar
1. Frost, not condensation, will appear on outside of Dewar.
2. Tar on the bottom of Dewar will be cold to touch.
3. Excessive Rapid boiling from the bottom of the Dewar continues after chilling.
4. Boiling on the top edge or side could indicate the wall of the Dewar is contaminated.

WARNING!
VACUUM FLASKS CAN SHATTER UNEXPECTEDLY AND MAY CAUSE INJURY. WEAR SAFETY GLASSES AND, FOR BEST PROTECTION, GLOVES, LONG SLEEVES AND APRON.

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