

## **ABRUPT BOIL OVERS OF LIQUIDS HEATED IN MICROWAVE OVENS**

- Stir liquids before heating them in the microwave oven to help prevent sudden boil overs which may cause severe burns.
- Hot liquids can suddenly boil over or erupt as they are removed from the oven due to "superheating" (i.e., heating beyond the boiling point). Boil overs most often occur with microwave cooking but they can occur with range top cooking. To prevent boil overs,
  - Before heating, mix air into the liquids by either stirring or pouring.
  - Before reheating, briskly stir the cooled liquid.
  - Do not heat liquid for more than 2 minutes.
  - After heating, allow the liquid to stand in the microwave for 30 seconds before moving it or putting anything into it.

Superheated liquids exceed the 212°F boiling point but show no surface signs of boiling because the air bubbles that trigger boiling have been expelled. The liquid is waiting to boil. Just a speck of dust or a tiny air bubble caused by movement or a slight vibration can initiate vigorous boiling and occasionally an intense eruption.

Be particularly careful with tall cups and containers because the energy that builds as the temperature rises is forceful enough to eject the liquid.

Always stir liquids before heating no matter the type of cooking appliance used. Always handle hot liquids carefully and follow the appliance manufacturer's instructions.