

DEPARTMENT OF ENVIRONMENTAL HEALTH County of Riverside

INFORMATIONAL BULLETIN NO. 55-07-DES

DISTRICT ENVIRONMENTAL SERVICES DIVISION

RAPID COOLING TECHNIQUES

Improper temperature control of potentially hazardous foods is responsible for causing the majority of foodborne illnesses. Rapid cooling of potentially hazardous foods can have a significant effect on controlling temperature, and most importantly the prevention of these illnesses.

COOL QUICK, SO YOU DON'T MAKE SOMEONE SICK

State law requires that all potentially hazardous foods be properly cooled within 6 hours and adhere to the following timeframes:

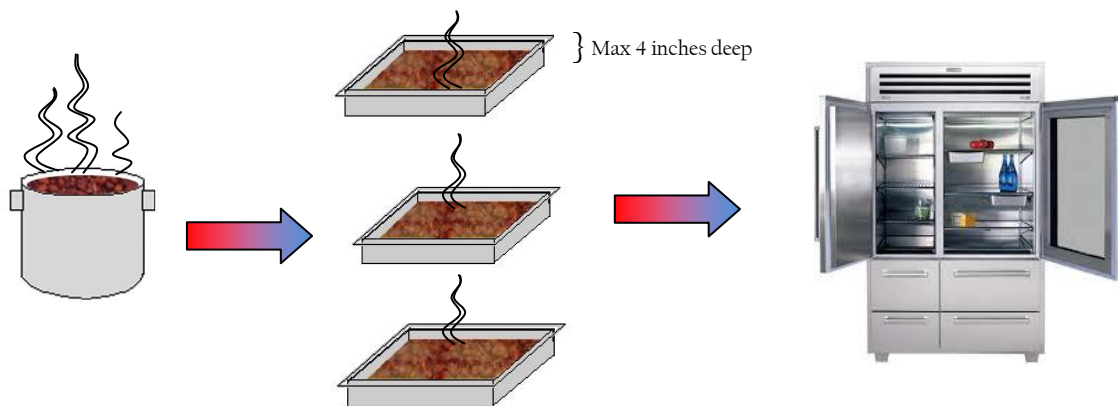
- Foods must cool from 135°F down to 70°F within two (2) hours
- Foods must cool from 70°F down to 41°F (or below) within four (4) hours

An accurate, calibrated probe thermometer is necessary to monitor food temperatures throughout the cooling process for any cooling method that you choose.

PROPER COOLING METHODS

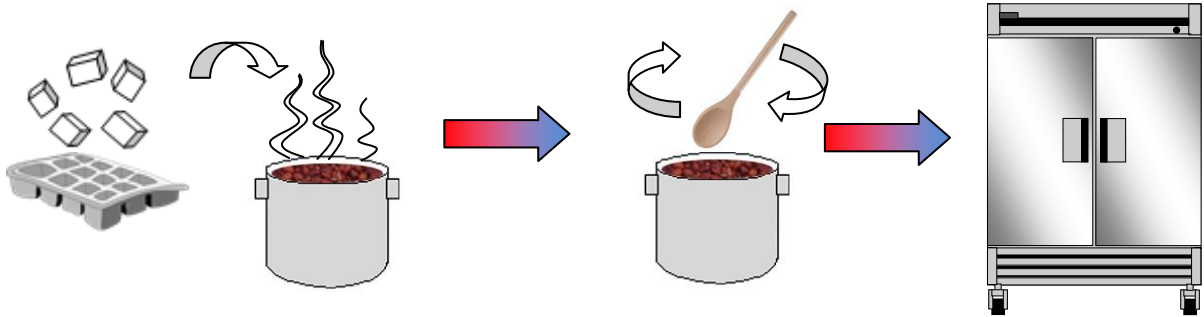
Using the following simple methods will help you easily meet the cooling time requirements.

Separate the hot food into shallow, metal pans, no deeper than 4 inches. Smaller batches of food will cool faster. Aluminum pans chill food the fastest, followed by stainless steel. Glass and plastic are not recommended because they are poor conductors of heat and take longer to cool. Arrange food containers in a refrigerator to allow for the best possible air flow around the containers. Loosely cover food containers that are placed into the refrigerator, so that heat and steam are able to escape the food surface.



SEPARATE HOT FOOD INTO SHALLOW PANS, LOOSELY COVER AND PLACE INTO REFRIGERATION TO COOL TO 41°F

Add ice as an ingredient. Ice can be substituted for water in a recipe and added at the end of the cooking process. After adding ice frequently stir the food product to increase the rate of cooling.

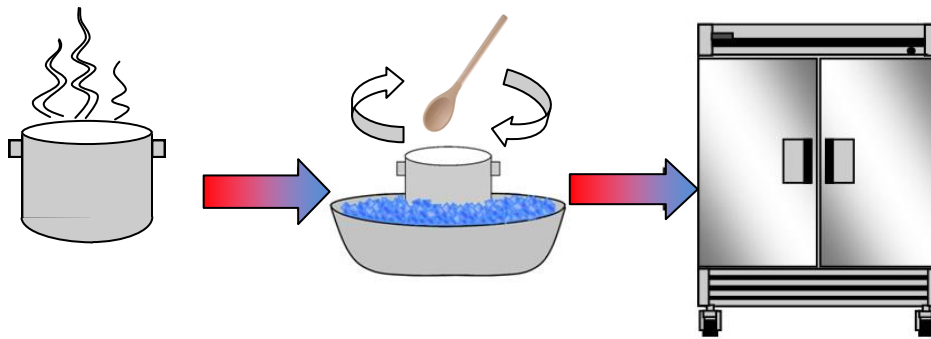


ADD ICE TO HOT FOOD

STIR TO MELT ICE & EVENLY COOL TO 41°F

REFRIGERATE

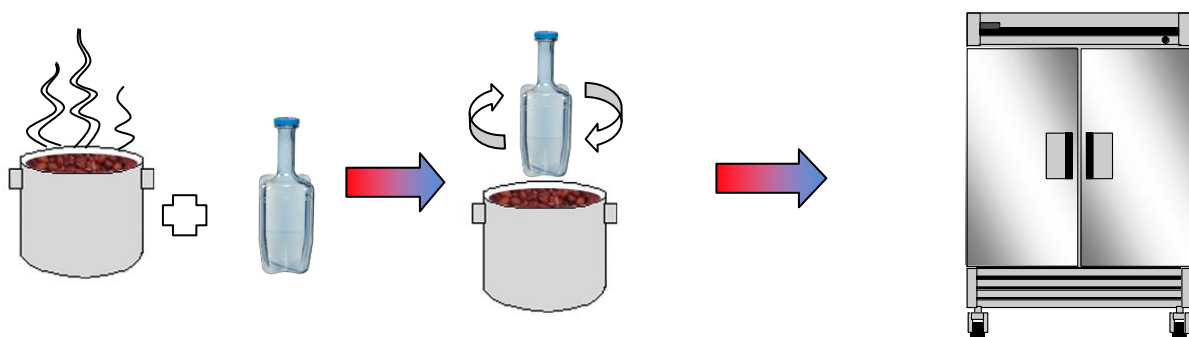
Use an ice bath. Place the hot food container inside of an empty container that is larger in size than the container of hot food. Fill the empty container with ice. Ice shall completely surround the hot food product container (ice bath). Ensure that the ice level in the ice bath is above the hot food product level. In addition, stirring the food rapidly and frequently will increase the rate of cooling.



INSERT HOT FOOD CONTAINER INTO ICE BATH & STIR UNTIL FOOD IS 41°F

REFRIGERATE

Use cooling equipment. You can purchase specially designed, hollow, stirring utensils, called chill sticks or chill paddles that can be filled with water and frozen.



INSERT FROZEN CHILL PADDLE INTO HOT FOOD & STIR UNTIL 41°F

REFRIGERATE & STIR UNTIL 41°F

Use this form to help monitor your rapid cooling techniques. This sheet along with a time/temperature log sheet will assist you in keeping track of your cooling process and explaining your cooling techniques to the environmental health specialist during an inspection. Make as many copies as you need.



REMEMBER TO COOL FOODS QUICK SO YOU DON'T MAKE SOMEONE SICK!

- Within two (2) hours; cool potentially hazardous foods to 70°F
- Within four (4) hours; cool potentially hazardous foods to 41°F (or below)

DATE	TIME	TEMP.	PRODUCT	COOL-DOWN MEHTOD	INITIALS
2/13	6:00AM	183°F	Clam Chowder	Place 5 gallon container into ice bath.	
2/13	7:00AM	151°F	Clam Chowder	Stirred the clam chowder.	
2/13	8:00AM	95°F	Clam Chowder	Added more ice to ice bath and stirred the chowder.	
2/13	9:00AM	43°F	Clam Chowder	Chowder was transferred to the walk-in refrigerator.	

