

HOW TO:

Liquid Nitrogen Ice Cream

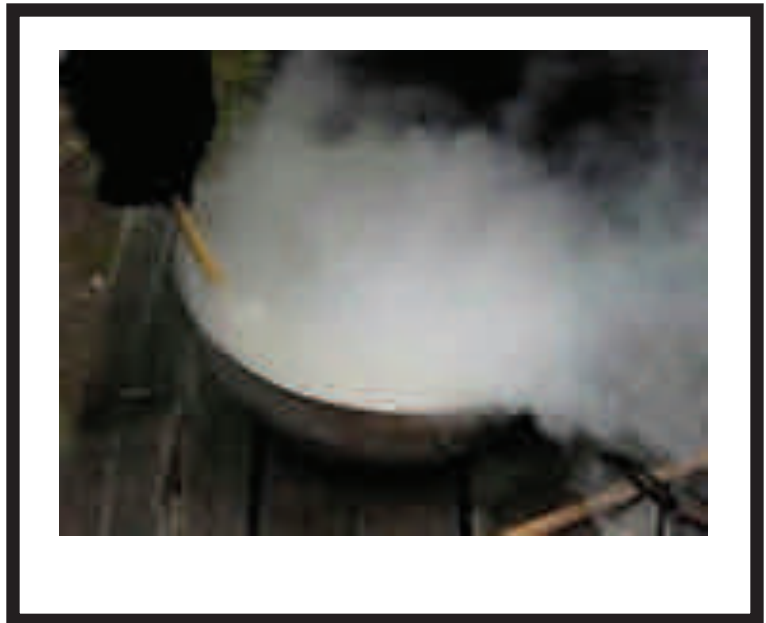
Items Needed:

5 or more liters of liquid nitrogen
gloves and goggles
large plastic or stainless steel punch bowl
or salad bowl
4 cups heavy cream (whipping cream)
1-1/2 cups half-and-half
1-3/4 cups sugar
Chocolate or strawberry syrup
wooden spoon
wire whisk

Approximate time to complete: 10 minutes

Skill Level: Advanced

Budget for materials: \$15.00



Project Instructions:

This recipe makes a half gallon of ice cream. First, mix the cream, half-and-half, and sugar in the bowl using the wire whisk. Continue mixing until the sugar has dissolved.

If you are making vanilla or chocolate ice cream, whisk in vanilla or chocolate syrup now. Add any other liquid flavorings you might want.

Put on your gloves and goggles. Pour a small amount of liquid nitrogen directly into the bowl with the ice cream ingredients. Continue to stir the ice cream, while slowly adding more liquid nitrogen. As soon as the cream base starts to thicken, add the mashed strawberries. Stir vigorously.

When the ice cream becomes too thick for the whisk, switch to the wooden spoon. As it hardens more, remove the spoon and just pour the remaining liquid nitrogen onto the ice cream to fully harden it.

Allow the excess liquid nitrogen to boil off before serving the ice cream.

What's Happening:

Nitrogen is a common element which occurs with such frequency, that it is about 80% of the air that you breathe. Nitrogen in liquid form must exist at a very low temperature at -321F. The nitrogen boils off and returns to a the vapor state at a relatively low temperature, too, and happens extremely quickly. These properties make liquid nitrogen an ideal cooling mechanism to turn liquid cream, sugar and flavor into frozen, delectable treats. The heat from the ingredients is transferred to the nitrogen when they come in contact. This freezes the ice cream almost immediately. The nitrogen boils off so quickly, by the time the vapor is dissipated, the nitrogen is

once again in our atmosphere, and the ice cream ingredients have changed states from liquid to solid in the process. These temperatures are so extreme that safety measures must be implemented to protect tissue from the extreme temperature. By the time the icecream reaches your mouth, it is the ideal frozen temperature.

