

Cooking with Chemistry

Welcome to the first Liquid Nitrogen Ice Cream page on the Internet.

As seen on [CNN!](#) or view a local [copy](#) of the story.
Also written up in [Mountaineer Spirit](#) and in the *Dominion Post*
Cool Site of the Day, October 10th!
Tech Talk's [Weird Site](#) of the Day, December 2nd!
The Duke of URL, [June 1997!](#)
MCI's CoolClix for July.
Read some of the [letters](#) that I get!

Now serving number:

If you are anything like me, then you love ice cream. There is nothing like making your own, but the problem is, it just takes too long to freeze and some things just don't like to freeze.

A while ago *Scientific American* [April, 1994 pgs. 66-71] had an article call Cooking with Chemistry or something along those lines. One of the recipes was one for using Liquid Nitrogen to make Ice Cream.

Great!

Now as you all know, Nitrogen is about 78% of the volume of the atmosphere and has a boiling temperature of one hundred and ninety five point eight degrees below zero Celsius.

In plain simple English, it's *cold*.

The price is about two cents to \$2.75 per 100 cubic feet depending on purity, which isn't anything important here, so get the two cent stuff. You will also probably need a container, which you can rent/borrow from the people that you are buying the Nitrogen from. Don't use a cooler, as it will not survive the trip.

Simple rules for handling Liquid Nitrogen:

I could say ***DO NOT LET IT TOUCH SKIN*** but someone will be a bone head and do it anyway. The truth of the matter is that the human body is so hot to the Liquid Nitrogen that it will boil in your hand with out any harm to you. However, the instant you contain the liquid Nitrogen, like in a fist, you increase the pressure of the gas trying to escape. The pressure builds up enough to give you a very bad freezer burn. Enough to need medical attention, so take my word for it and don't.



Ingredients needed to make simple Vanilla Liquid Nitrogen Ice Cream:

Milk



Heavy Cream (Half and Half will do nicely)
Real Vanilla (not that fake junk that's sold!)
Sugar
Liquid Nitrogen



Equipment needed:

Stainless Steel mixing bowl
Wooden mixing spoon
Gloves
A big sink or a level place out side.

First figure out how much you want to make. Multiply the total amount of ice cream by five to get the amount of Liquid Nitrogen needed to freeze the ice cream. A gallon of ice cream will thus need five gallons of Liquid Nitrogen.

Mix the Milk, Cream, Vanilla and sugar in the mixing bowl. The ratios should be twice as much cream as milk and about 8 tbsp of vanilla for every gallon of liquid. Sugar should be about 1 cup dry measure per gallon. If that's too sweet then half it. I do not know how artificial sweeteners react to the cold, so I don't recommend the usage of them.

Mix the ingredients until the sugar has dissolved into the milk and cream. Add in any fixings (candy, coffee, other flavors). Move to the sink if you haven't already.

Pour in the Liquid Nitrogen *slowly* and mix with the wooden spoon until completely frozen, which should be about 10 minutes. Wear the gloves, because it's going to be cold.

For a better freeze, prepare the icecream in a pressure cooker, and after adding the Liquid Nitrogen, clamp shut for 5 minutes.

Eat!

If you want, you can add cookie dough or just about anything else to the mixture. Don't worry, it will freeze (trust me, it has no choice but too!).

Other flavors can be made by replacing or adding with the Vanilla with your choice of:

Coffee (hot, strong and fresh is the best) - with a few whole beans - yum!





Cookie dough - either homemade or store bought will do.

Candy - A Milky Way is good in bits, as is Heath Bar.

Liquors - Don't worry about the low freezing point, Liquid Nitrogen is much lower!

Other Icecream sites:

[Langese](#) in Germany.

[Ben and Jerry's](#) - From my old stomping grounds in Vermont!

[Links](#) to more Ice Cream Pages.

[The Soda Fountain](#) web site.

[Video](#) 8.3 Megs.

[Mpeg version of the video](#) 3 Megs.

A Special Thank You to Curtis Griffith for doing the conversion for me.

How the Video was [made](#).

More still [pictures](#) from the video.

I have created a filter which reads my email for key words and will automatically delete any message asking for LN.

Henry

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