

Plastic Milk!

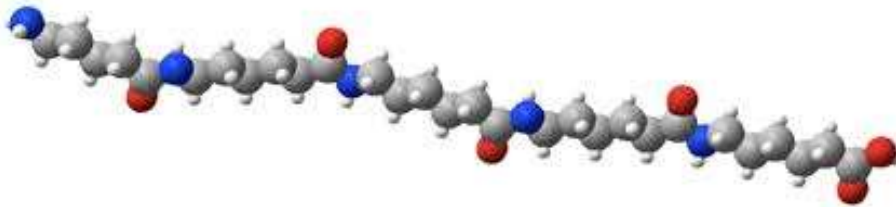
Turn boring milk into a cool sculpture by making it into a unique plastic called “casein”.

Ingredients:

- 1 cup of milk
- 4 teaspoons of vinegar
- Food coloring (optional)

1. Add one cup of milk into a metal pot. Heat the pot until the milk is hot but not boiling
2. Carefully pour the hot milk into a bowl
3. Add the 4 tsp of vinegar and a couple of drops of food coloring into the milk and stir for about a minute and a half
4. Pour the milk through a strainer and wash the lumpy blobs with cool water. Then mold the blobs into a figure of your choosing and let it harden for two days.

Milk contains many molecules of a protein called casein. When milk is heated and combined with an acid, such as vinegar, the casein molecules unfold and reorganize into a long chain called a polymer.



Did you know from the early 1900s until about 1945, casein plastic was quite common? Casein plastic has been used to make buttons, decorative buckles, and fancy brushes.

