

Casein Plastic

How to make bio-plastic from milk

What you need:

- 250ml full fat or semi-skimmed milk
- 4 tbsps of white vinegar
- metal strainer
- paper towels
- cookie cutters and wooden skewer
- food colouring / paint

1. Heat the milk.

Heat the milk until it is almost boiling. This could be done using a microwave or on the stove.

2. Add the vinegar

Add the vinegar to the hot milk and stir for a minute. Clumps will start to form. If not the milk isn't hot enough and you'll have to try again.

SCIENCE BIT: When the milk comes into contact with the vinegar, the protein casein separates and sticks together, forming clumps.



3. Pour the milk through a strainer

Let the milk cool a little and pour through the mesh of the strainer. As the liquid drains through the mesh the clumps/curd should remain on the top.



4. Squeeze liquid out of the curd

Scoop the curd out of the strainer and onto the paper towels. Squeeze the curds to remove any excess moisture.



5. Knead the dough

Once the curds have cooled squeeze the curds together to form a dough and knead well. At this point you could add food colouring to your dough.

6. Shape the dough

Shapes:

After kneading, roll out the dough and use cookie cutters to create shapes.

Beads:

Alternatively, roll the dough into balls and poke a hole through the middle. Add glitter, if using, while the beads are still wet.



7. Leave to dry and decorate

Allow the plastic to dry out for a few days. Once it is dry and hard decorate it using craft paint or permanent markers. If making jewellery, string the beads onto string.

Pic ref - wikiHow <http://www.wikihow.com/Make-%22Plastic%22-out-of-Milk>

