Detection of adulteration of milk

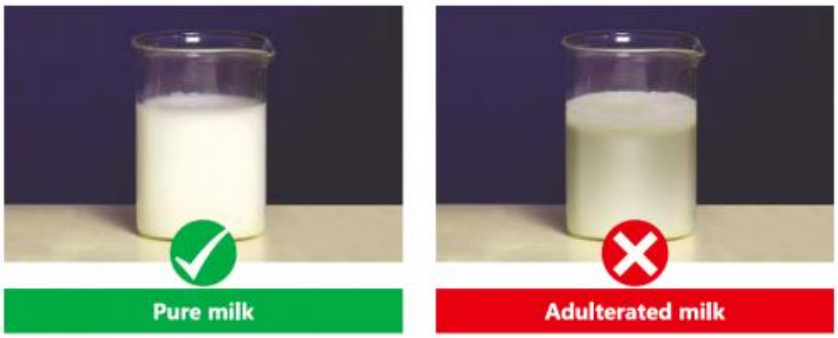
Milk is a common drink of our daily diet. But not every-time the milk we take is pure. Milk may have urea, formalin, starch and water as impurity. Packed milk and milk purchased from milk-seller can be adulterated so it's important to check for them before consuming. Simple tests to check milk for common adulterant are shown below

Test 1: Water in milk

- Put a drop of milk on a polished, slanting surface
- Pure milk either stays or flows slowly leaving a white trail behind
- Milk adulterated with flow immediately without leaving a mark

Test 2: Detergent in milk

- Take 5-10 ML of milk sample and equal quantity of water
- Shake the mixture thoroughly
- If the milk is adulterated with detergent, it forms dense lather
- Pure milk will have a thin layer of foam



Test 3: Detecting starch in milk

- Boil 2-3 ML of milk sample with 5 ML of water
- Add 2-3 drops of stain of iodine after letting it cool
- Formation of blue colour indicates the presence of starch

Test 4: Detecting formalin in milk

- Take 10 mL of milk sample in a test tube
- Add 5 mL sulfuric acid with a little amount of ferric chloride without shaking
- Appearance of violet or blue color at the junction of two liquid layers indicates the presence of formalin.

Test 5: Detecting urea in milk

- Mix half tablespoon of milk and soybean powder together and shake well.
- After 5 minutes, dip litmus paper for 30 seconds
- If there is a color change from red to blue it means the milk has urea in it.