

Experiment no. 6: Soda test of milk

Introduction:

The compound alizarin comes from the root of the madder plant and is used as a dye to color fabrics. Alizarin dates back to the tenth century, where it was used in Asia Minor. Ancient Egyptians, Romans, and Greeks also used the madder root for its bright red color. Alizarin can also be used as a pH indicator. Although it had been extracted from the root of the madder plant for many centuries, chemists Grebe and Liebermann figured out how to make alizarin in a laboratory in 1868. This eliminated the need for the cultivation of the madder root plant and actually wiped out an entire industry dedicated to growing the plants.

Reagents:

- Sample milk
- Alizarin

Procedure:

- Take 5ml of milk in a test tube and add 5ml alcohol followed by 2-3 drops of alizarin.
- And shake proper well.

Observation:

If the colour of milk changes to pinkish red, then it is inferred that the milk is adulterated with sodium carbonate/sodium bicarbonate and hence unfit for human consumption.