

THE MYSTERIOUS CHANGING BEVERAGE TRICK

EFFECT:

A bottle containing a disgusting green liquid becomes different beverages as it poured from one container to another.

DESCRIPTION:

A conical flask (or beaker) contains a green liquid. When it is poured into the first empty flask the liquid will change to a light red colour; becoming rosé wine. As this light red beverage is poured into the second empty flask it will switch to a blue colour, becoming blackberry juice.

HOW IT WORKS:

The initial flask contains normal tap water and universal indicator. Because tap water is pretty much neutral, the indicator will be in its neutral colour, in our case: green. The first empty flask actually contains a tiny volume of a concentrated acidic solution that will turn the solution acidic and so the universal indicator becomes red in colour. The final flask has a small volume of a concentrated basic solution that will turn the whole solution basic and so the universal indicator switches to be blue in the presence of a base.

CHEMICAL INFO:

For the acidic solution we used a small amount dilute of hydrochloric acid.

For the basic solution in the second flask, we used a small volume of 10% aqueous ammonia i.e. ammonium hydroxide (note that this and especially more concentrated solutions have a pungent smell, so keep your audience at a distance).

As we poured the acidic solution into the second beaker containing ammonia, it had to initially neutralise the base before the solution could turn basic. Here is the equation of the ammonia neutralising an acid:

 $NH_3 + H_2O \rightarrow NH_4OH$ (aqueous ammonia)

 $NH_4OH + HCl \rightarrow NH_4Cl + H_2O$ (neutralisation)

Do not leave the solutions unattended, or in the hands of a spectator, in case they try to drink them!

Dilute hydrochloric acid and aqueous ammonia solutions are corrosive so handle with care and less skilled illusioneer operators should consider wearing gloves.

HINTS AND TIPS:

WARNING: The idea of a mysterious changing beverage is a good story and helps make this a fascinating trick, but never forget that these are actually dangerous chemicals. While you may know that what you claim to be a delicious juice beverage is actually a dangerous basic solution, people in your audience will not.



