

Some reactions of ammonia

Instructions

1. Cover the worksheet with a clear plastic sheet.
2. Place the base of the petri dish directly over the circle below. Place the reaction vessel in the centre.
3. At the corners of the triangle add drops of the test solutions only as indicated below (Care: Nessler's reagent is toxic – it contains mercury compounds – make sure that you do not get any on your skin. If you do, wash it off quickly with water).
4. Put three drops of ammonia solution into the reaction vessel and quickly replace the lid on the petri dish.
5. Record all your observations over the next 15 min.

Question

1. What explanations can you give for your observations?

Health & Safety

Students must wear suitable eye protection (Splash resistant goggles to BS EN166 3) and gloves.

Nessler's reagent, (K_2HgI_4) is **extremely** toxic by all routes and contains mercury. It is also corrosive and toxic to aquatic life. Avoid contact with the skin and wash off quickly with water if this does occur.

Ammonia solution, $3 \text{ mol.dm}^{-3} \text{ NH}_3(\text{aq})$ is CORROSIVE.

Copper(II) sulphate solution, 0.2 mol dm^{-3} , $\text{CuSO}_4(\text{aq})$ causes eye damage and is toxic to aquatic life.

Some formulations of universal indicator can still be flammable at a 1:1 dilution. Keep away from sources of ignition.

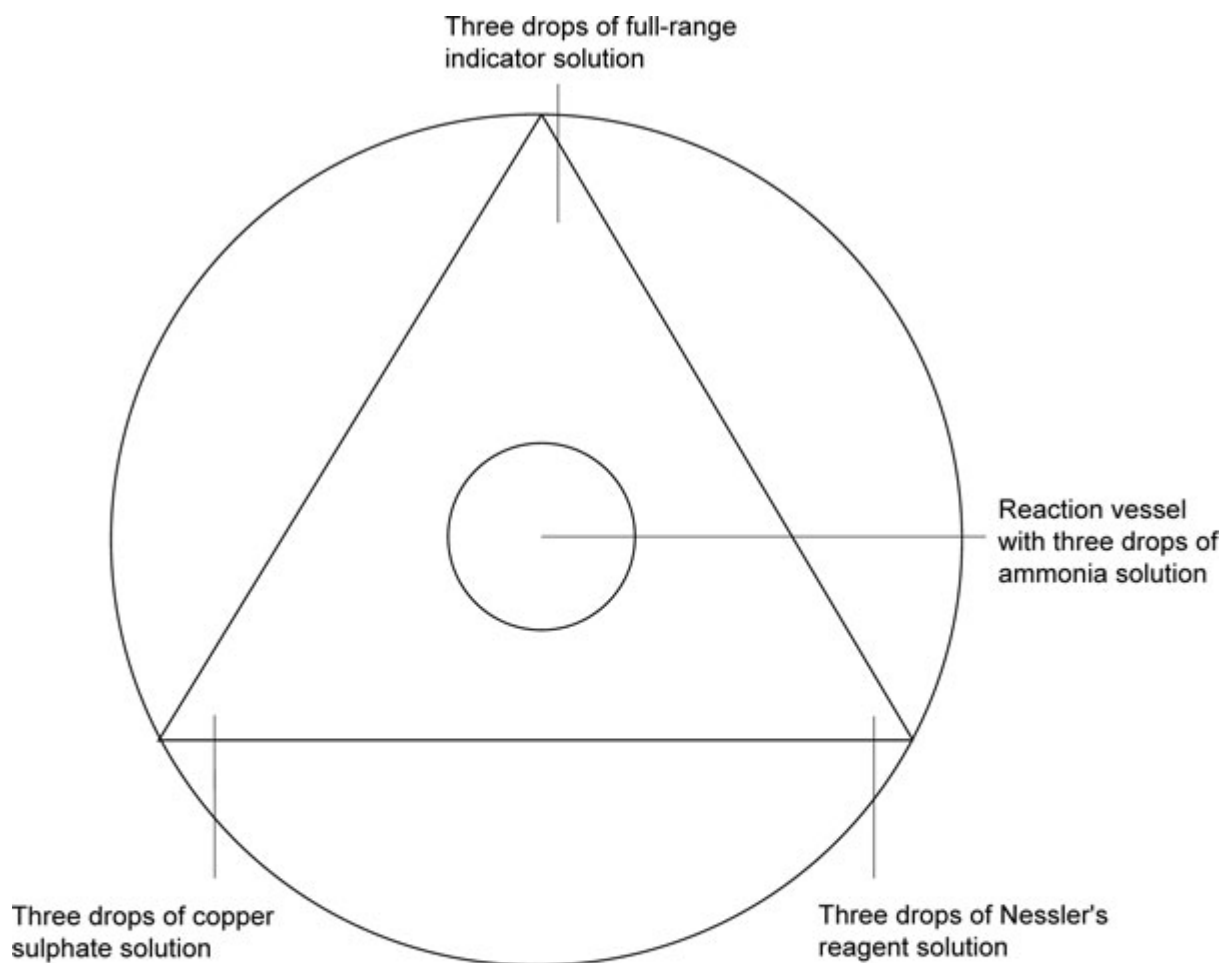
Credits

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Health & safety checked May 2018

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There must be a gap between the top of the reaction vessel and the lid of the petri dish

