

Chemguide – questions

PHENYLAMINE: MAKING DIAZONIUM SALTS

1.
 - a) Draw the structure for benzenediazonium chloride.
 - b) Describe how you would make a solution containing benzenediazonium chloride, making clear any essential conditions.
 - c) The reaction is essentially between phenylamine and nitrous acid, but your description in part (b) shouldn't have actually included any nitrous acid. Where did the nitrous acid come from?
 - d) Write the ionic equation for the reaction between phenylamine and nitrous acid.
 - e) If you allow the mixture in this reaction to get too warm, you get a different reaction occurring. Describe what you would see happening.