

Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										

For Examiner's Use Total Task 2



General Certificate of Education  
Advanced Subsidiary Examination  
June 2010

## Chemistry

## CHM3X/PM2

Unit 3X AS Externally Marked Practical Assignment  
Task Sheet 2

To be completed before the EMPA Written Test.

For submission by 15 May 2010

For this paper you must have:

- a ruler
- a calculator.

**Task 2      Observation Exercise****Investigation of a salt produced by neutralising the glass cleaner**

You are provided with an aqueous solution, labelled **A**, obtained by neutralising the glass cleaner with an acid.

**Use a separate sample of solution A in each of the following tests.**

Record what you **observe** in a table of your own design on the Candidate Results Sheet for Task 2. Where no visible change is observed, write 'no visible change'.

You are not required to identify solution **A** or any of the reaction products in this part of the task.

**Wear eye protection at all times.**

**For the purpose of this task assume that all solutions are toxic and corrosive.**

**Test 1      Test with sodium hydroxide solution**

- (a) Place about 10 drops of **A** in a test tube. Add 10 drops of sodium hydroxide solution, and shake the mixture. **Keep this mixture for use in part (b).**
- (b) Half fill a 250 cm<sup>3</sup> beaker with the hot water provided. Stand the test tube containing the mixture from part (a) in the beaker. Test the vapour above the mouth of the test tube with damp universal indicator paper.

**Test 2      Test with calcium chloride solution**

Place about 10 drops of **A** in a test tube. Add 10 drops of calcium chloride solution. Shake the mixture. Allow the mixture to stand for a few minutes at room temperature.

**While you are waiting, begin the tests below.**

**Test 3      Test with barium chloride solution and hydrochloric acid**

Place about 10 drops of **A** in a test tube. Add 10 drops of dilute hydrochloric acid, followed by 10 drops of barium chloride solution. Shake the mixture.

**Test 4      Test with silver nitrate solution and nitric acid**

Place about 10 drops of **A** in a test tube. Add 10 drops of dilute nitric acid, followed by 10 drops of silver nitrate solution. Shake the mixture.

**Candidate Results Sheet for Task 2**

Teacher Group .....

**Results**

Record your observations in a table of your own design in the space below.

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R		A	

**There are no questions printed on this page**

**DO NOT WRITE ON THIS PAGE  
ANSWER IN THE SPACES PROVIDED**