

Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										

For Examiner's Use Total Task 2



General Certificate of Education
Advanced Subsidiary Examination
June 2011

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 2011

For this paper you must have:

- a ruler
- a calculator.

Task 2 Observation Exercises

Investigation of the metal ion in a moss killer

You are provided with an aqueous solution of the salt of an organic acid in a moss killer, labelled **A**.

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

Record your observations 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 task.

Wear eye protection at all times.

Assume that all solutions are toxic and corrosive.

Procedure

Test 1 Test with sodium hydroxide solution

Place about 10 drops of **A** in a test tube.

Add 10 drops of sodium hydroxide solution and shake the mixture.

Test 2 Test with sulfuric acid

Place about 10 drops of **A** in a test tube.

Add 10 drops of sulfuric acid and shake the mixture.

Test 3 Test with potassium chromate(VI) solution and hydrochloric acid

(a) Place about 10 drops of **A** in a test tube.

Add 10 drops of potassium chromate(VI) solution and shake the mixture.

Keep this mixture for use in part (b).

(b) To the mixture from part (a) add hydrochloric acid, with shaking, until there is no further change.

Test 4 Test with silver nitrate solution and nitric acid

Place about 10 drops of **A** in a test tube.

Add 10 drops of nitric acid, followed by 10 drops of silver nitrate solution.

Shake the mixture.

Test 5 Test with sodium carbonate solution

Place about 10 drops of **A** in a test tube.

Add 10 drops of sodium carbonate solution and 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.

For Examiner's use only

R		A	
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There are no questions printed on this page

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