

directions as to mode of filtering). Place one drop of the filtered liquid on a watch glass, and a drop of tap water alongside of it, and hold between finger and thumb over a flame until both drops are evaporated. Both leave deposits, as the tap water always has salts dissolved in it. The solubility can be judged by the difference in amount of the deposits; in this particular case there will be a very slight difference, as the magnesium ash is almost insoluble in water.

Test the filtered liquid with litmus as follows: Put pieces of red and of blue litmus paper, not larger than the little finger nail, into a test-tube containing half an inch of the solution, and similar pieces into a test-tube containing the same amount of ordinary tap water; after five minutes compare the litmus papers in the solution with those in the water; if any change has taken place in any of the pieces, note the tube in which it has occurred and also the character of the change. (Always use this method for testing with litmus where the effect is not marked.) Let the pupil write his explanations and conclusions at home, and as a guide suggest such questions as the following to be answered in his report:

Is the ash a different substance from the magnesium?

Do you think the ash contains the magnesium?

If so, how would the weight of all the ash compare with that of the magnesium?

If the ash does not contain the magnesium, what has become of it?

Does the ash look like one substance or like a mixture?

EXPERIMENT 2. *To find whether the ash formed when magnesium is burned weighs more or less than the magnesium.*