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| DATA TABLE | |
| Mass of clean copper strip | 1.2789 grams |
| Mass of copper strip and compound | 1.2874 grams |
| Mass of copper strip after washing | 1.2748 grams |

An experiment is performed to determine the empirical formula of a copper iodide formed by direct combination of elements. A clean strip of copper metal is weighed accurately. It is suspended in a test tube containing iodine vapor generated by heating solid iodine, A white compound forms on the strip of copper, coating it uniformly. The strip with the adhering compound is weighed. Finally, the compound is washed completely from the surface of the metal and the clean strip is dried and reweighed. 1990

1) State how you would use the data above to determine each of the following. (Calculations not required.)

a) The number of moles of iodine that reacted

b) The number of moles of copper that reacted

2) Explain how you would determine the empirical formula for the copper iodide.

3) Explain how each of the following would affect the empirical formula that could be calculated.

a) Some unreacted iodine condensed on the strip.

b) A small amount of the white compound flaked off before weighing.