

Chapter 1 Exercise Key

Exercise 1.1 – Classification of Matter

The label on a container of double-acting baking powder tells us that it contains cornstarch, bicarbonate of soda (also called sodium hydrogen carbonate, NaHCO_3), sodium aluminum sulfate, and acid phosphate of calcium (which chemists call calcium dihydrogen phosphate, $\text{Ca}(\text{H}_2\text{PO}_4)_2$). Classify each of the following as a pure substance or a mixture. If it is a pure substance, is it an element or a compound?

- calcium **pure substance and element**
- calcium dihydrogen phosphate **pure substance and compound**
- double-acting baking powder **mixture**