

# Stoichiometry

## Percent Composition

---

---

---

---

---

---

---

---

Chemical compounds have the same mass ratio of elements no matter how formed

### Copper Bicarbonate



---

---

---

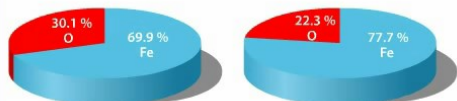
---

---

---

---

---



Replay

---

---

---

---

---

---

---

---

## Percentage Composition

- The **percentage composition** of a compound is the percentage by mass contributed by each element in the substance:

$$\% \text{composition} = \frac{(\# \text{ of atoms of element})(\text{AW of element})}{\text{FW of compound}} \times 100\%$$

- AW means Atomic Weight
- FW means Formula Weight
- Subscript

---

---

---

---

---

---

---

---

## Percent composition (by mass) of $\text{NaN}_3$

$$\% \text{ Na} = \frac{\text{g/mol Na}}{\text{g/mol NaN}_3} \times 100\% = \frac{23.0 \text{ g/mol}}{65.0 \text{ g/mol}} \times 100\% = 35.4\%$$

$$\% \text{ N} = \frac{3(\text{g/mol N})}{\text{g/mol NaN}_3} \times 100\% = \frac{3(14.0 \text{ g/mol})}{65.0 \text{ g/mol}} \times 100\% = 64.6\%$$

Or  $100 - 35.4 = 64.6\%$

---

---

---

---

---

---

---

---

## Lets Practice

---

---

---

---

---

---

---

---