

Percentage Yield

Chemistry

Comparing what you got with what was theoretically possible.

Percentage yield is actual yield divided by theoretical yield.

$$\% \text{ yield} = (\text{actual} \div \text{theoretical}) \times 100$$

Theoretical 8.0 g, actual 6.4 g

80%

Why below 100%

Losses, side reactions, reversibility

Above 100%

Usually residual solvent.

Product is impure or wet

THE COMMON MISTAKE

✗ **Calculating from the reactant in excess**

✓ **Using the limiting reactant**

The limiting reactant is consumed first and caps the product. The excess simply remains.

Percentage yield above 100% always indicates impurity — most often incomplete drying.