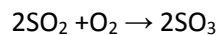


What is the limiting reagent when 3.1 mol of SO₂ react with 2.7 mol of O₂ according to the equation:



Answer: According to the reaction equation, 2 moles of SO₂ fully react with 1 mole of O₂, theoretical molar ratio is 2:1. And the real molar ratio is: $n(\text{SO}_2)/n(\text{O}_2) = 3.1/2.7 = 1.15:1$.

As you can see, SO₂ is in deficit in comparison to the theoretical ratio. It means, that SO₂ is the limiting reagent.