

MOLE CONCEPT

Mass of one nitrogen atom 14.01 amu N

Mass of 6.022×10^{23} nitrogen atoms 14.01 grams N

Mass of one NH_3 molecules 17.03 amu NH_3

Mass of 6.022×10^{23} NH_3 molecules 17.03 grams NH_3

Number of atoms in 28.09 amu of Si 1 atom Si

Number of atoms in 28.09 grams of Si 6.022×10^{23} atoms Si

Number of molecules in 60.09 amu of SiO_2 1 molecule SiO_2

Number of molecules in 60.09 grams of SiO_2 6.022×10^{23} molecules SiO_2

14.01 grams N \longleftrightarrow 1 mol N \longleftrightarrow 6.022×10^{23} atoms N

17.03 grams NH_3 \longleftrightarrow 1 mol NH_3 \longleftrightarrow 6.022×10^{23} molecules NH_3

28.09 grams Si \longleftrightarrow 1 mol Si \longleftrightarrow 6.022×10^{23} atoms Si

60.09 grams SiO_2 \longleftrightarrow 1 mol SiO_2 \longleftrightarrow 6.022×10^{23} molecules SiO_2

14.01 amu N = 1 atom N

14.01 grams N = 6.022×10^{23} atoms N

17.03 amu NH_3 = 1 molecule NH_3

17.03 grams NH_3 = 6.022×10^{23} molecules NH_3

<p><u>amu</u> = <u>1 atom</u> or <u>molecule</u> <u>grams</u> = <u>6.022×10^{23} atoms</u> or <u>molecules</u></p>
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