

Amount of chemical substance (physical property)

@wikipedia

Normalised measure of the total amount N of the constitutive particles ([molecules/atoms](#)) in a given sample of [substance](#):

$$(1) \quad \nu = \frac{N}{N_A}$$

where

$N_A = 6.022140758(62) \cdot 10^{23} \text{ mol}^{-1}$	Avogadro constant
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Symbol	Dimension	SI Unit	Oil Metric Unit	Oil Field Unit
ν	1	mol	mol	mol

Alternative equations:

(2)		(3)					
$\nu = \frac{m}{M}$		$\nu = \frac{V}{V_m}$					
m	mass of a substance with amount ν	V	substance volume				
M	molar mass of a given substance	V_m	substance molar volume				
$\nu = \frac{N}{N_A} = \frac{m_u \cdot N}{m_u \cdot N_A} = \frac{m}{M}$ where <table><tr><td>m_u</td><td>molecular mass of a given substance</td></tr></table>		m_u	molecular mass of a given substance	$\nu = \frac{m}{M} = \frac{\rho \cdot V}{M} = \frac{V}{V_m}$ where <table><tr><td>ρ</td><td>density of a given substance</td></tr></table>		ρ	density of a given substance
m_u	molecular mass of a given substance						
ρ	density of a given substance						

See Also

[Natural Science](#) / [Chemistry](#) / [Chemical Substance](#)