

Solutions

Chemistry

The ways concentration is expressed, and when each is used.

Concentration units.

Unit	Is	Used for
Molarity (M)	mol per dm ³ of solution	Most lab work
Molality (m)	mol per kg of solvent	Colligative properties
Mass %	g solute per 100 g solution	Industry
ppm	mg per kg, or mg per dm ³	Trace analysis
Mole fraction	mol of one ÷ total mol	Gas mixtures, Raoult's law

Molarity changes with temperature because volume does. Molality does not, which is why it is used for freezing point depression.