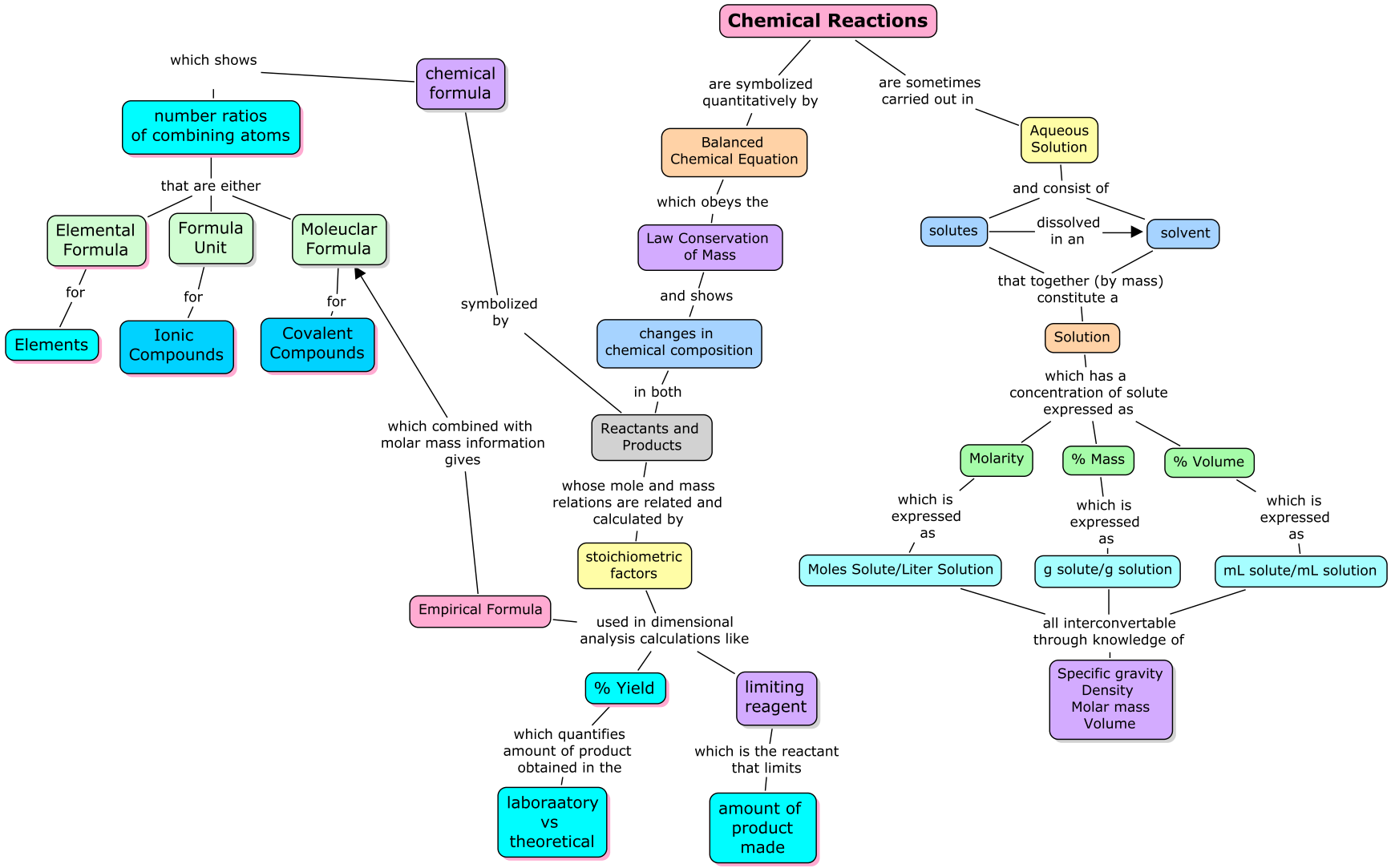
Chemical Reactions
are symbolized quantitatively by
Balanced Chemical Equation
which obeys the
Law Conservation of Mass
and shows
changes in chemical composition
in both
Reactants and Products
whose mole and mass relations are related and calculated by
stoichiometric factors
used in dimensional analysis calculations like
% Yield
which quantifies amount of product obtained in the
laboraatory vs theoretical
limiting reagent
which is the reactant that limits
amount of product made
Empirical Formula
which combined with molar mass information gives
symbolized by
chemical formula
which shows
number ratios of combining atoms
that are either
Elemental Formula
for
Elements
Formula Unit
for
Ionic Compounds
Moleuclar Formula
for
Covalent Compounds
are sometimes carried out in
Aqueous Solution
and consist of
solutes
dissolved in an
solvent
that together (by mass) constitute a
Solution
which has a concentration of solute expressed as
Molarity
which is expressed as
Moles Solute/Liter Solution
% Mass
which is expressed as
g solute/g solution
% Volume
which is expressed as
mL solute/mL solution
all interconvertable through knowledge of
Specific gravity
Density
Molar mass
Volume