Colloidal state

Colloidal solutions are intermediate between true solutions and suspensions. The size of the colloidal particles range from 1 to 1000 nm. A colloidal ~~particle~~ system consists of two phases —

(i) Dispersed phase
(ii) Dispersion medium.

(i) Dispersed Phase — It is the component present in small proportion and consists of particles of dimensions (1-1000 nm).

(ii) Dispersion medium — The medium in which colloidal particles are dispersed is called dispersion medium.
For example, in a colloidal solution of sulphur in water, sulphur particles constitutes disperse phase and water constitutes dispersion medium.

Colloids are sometimes given specific names depending upon the nature of dispersion medium.
example —

Dispersion medium	Name of colloids
water	Hydrosols or Aquasols
Alcohol	~~Alcosols~~ Alcosols
Benzene	~~Benzosols~~ Benzosols
Gases	Aerosols

classification of colloids

classification of colloids based on physical state of dispersed phase and dispersion medium

Dispersed phase	Dispersion Medium	Common Name	Example
Solid	Solid	Solid sol	Coloured gems and glasses, some alloys, rock salt,
Solid	Liquid	Sol	Arsenious sulphide sol, gold sol, starch, paint, muddy water.
Solid	Gas	Aerosol	Smoke, dust storm.
Liquid	Solid	Gels	Jellies, cheese, Iron hydroxide, Shoe polish.
Liquid	Liquid	Emulsion	Milk, cod-liver oil.
Liquid	Gas	Liquid aerosol	Mist, Fog, cloud, insecticide sprays
Gas	Solid	Solid foam	Pumice stone, rubber, occluded gases.
Gas	Liquid	Foam	Soap lather, whipped cream, lemonade froth