

- A **solution** is a **mixture** where one substance dissolves in another. It looks like **one single liquid**, but it's made up of **two or more substances**.

Example:

- **Salt water** is a solution of **salt (solute)** in **water (solvent)**.
- **Solute** is the **substance that gets dissolved** in a liquid.

Examples of solutes:

- Salt in water
- Sugar in tea
- Ink in water
- **Solvent** is the **liquid** that **dissolves the solute**.

Examples of solvents:

- Water (most common solvent)
- Milk (for chocolate powder)
- Alcohol (used in perfumes)
- **What Makes a Good Solution?**

A good solution has:

- A **clear appearance** (you can't see the solute)
- Even distribution (solute spreads throughout)
- No residue or particles left behind
- **Types of Solutions (based on solubility)**

Type of Solution	Description	Example
Saturated	Cannot dissolve more solute	Salt water with too much salt
Unsaturated	Can dissolve more solute	Normal sugar water
Dilute	Less solute, more solvent	Few drops of juice in water

Concentrated	More solute, less solvent	Strong lemon juice
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● **Why is Water Called a Universal Solvent?**

Because it can **dissolve more substances** than any other liquid. It is used in **medicine, cooking, cleaning, and factories.**

● **How to Increase Solubility?**

To make solutes dissolve **faster**:

- **Stir** the mixture
- **Heat** the solution
- **Crush** the solute into smaller pieces

● **Uses of Solutions in Daily Life**

Use	Example
Cooking	Salt and spices dissolve in food
Medicines	Syrups are sugar + medicine solutions
Cleaning	Soap solution helps remove dirt
Drinks	Juice, tea, and coffee are solutions