

ACIDS, BASES AND SALTS

GENERAL SCIENCE

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## **ACIDS**

### Introduction

➤ An acid is the compound which is capable of forming hydrogen ions (H+) in aqueous solution whereas a base is the compound that forms hydroxyl ions (OH−) in solution.

# **Acid**

> The word 'acid' is derived from the Latin name "acidus" which means sour taste. Substances with sour taste are called acids.

# **Classification of Acids**

#### Based on their sources:

- \* Organic acids
- \* Inorganic acids

#### **Based on their Basicity**

- Monobasic Acid
- Dibasic Acid
- Tribasic Acid

# **Based on Ionisation**

- \* Strong Acids
- Weak Acids

### **Based on Concentration**

- Concentrated Acid
- Dilute Acid

\*\*\* MIN'S

## **BASES**

### Introduction

- ➤ According to Arrhenius theory, bases are substances that ionise in water to form hydroxyl ions (OH<sup>-</sup>).
- > There are some metal oxides which give salt and water on reaction with acids.
- A base reacts with an acid to give salt and water only.
  - **\*** Base + Acid → Salt + Water

### **Properties of Bases:**

- > They have bitter taste.
- Their aqueous solutions have soapy touch.
- > They turn red litmus blue

#### pH Scale

- A scale for measuring hydrogen ion concentration in a solution is called pH scale.
- The 'p' in pH stands for 'potenz' in German meaning power.

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### **SALT**

# Introduction

- > Salts are the products of the reaction between acids and bases.
- ive ions when. Salts produce positive ions and negative ions when dissolved in water.
- ➤ Acid + Base → Salt + Water

### **Types of Salts**

- (i) Normal Salts
- (ii) Acid Salts
- (iii) Basic Salts
- (iv) Double Salts

#### **Properties of Salts**

- Salts are mostly solids which melt as well as boil at high temperature.
- Most of the salts are soluble in water. For example, chloride salts of potassium and sodium are soluble in water. But silver chloride is insoluble in water.

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### **Uses of Salts**

- Common Salt (NaCl)
- ➤ Washing Soda (Sodium Carbonate-)
- Baking Soda (Sodium bicarbonate -NaHCO3)