

UNIT

14

ACIDS, BASES AND SALTS

 Learning Objectives


After completing this lesson, students will be able to

- know about formation, properties and uses of acids, bases and salts.
- know the importance of acids, bases and salts in daily life.
- understand how to identify the nature of a solution by using indicators and pH paper.
- know the strength of acid or base solutions.
- define pH scale and explain the significance of pH in everyday life.
- know aquaregia and its properties.

Introduction

We know that the physical world around us is made of large number of chemicals. Soil, air, water, all the life forms and the materials that they use are all consist of chemicals. Out of such chemicals, acids, bases and salts are mostly used in everyday life. Let it be a fruit juice or a detergent or a medicine, they play a key role in our day-to-day activities. Our body metabolism is carried out by means of hydrochloric acid secreted in our stomach. An acid is a the compound which is capable of forming hydrogen ions (H^+) in aqueous solution whereas a base is a compound

that forms hydroxyl ions (OH^-) in solution. When an acid and a base react with each other, a neutral product is formed which is called salt. In this lesson let us discuss about them in detail.

14.1 Acids

Look at the pictures of some of the materials used in our daily life, given below:

All these edible items taste similar i.e. sour. What causes them to taste sour? A certain type of chemical compounds present in them gives sour taste. These are called acids. The word 'acid' is derived from the Latin name "acidus"

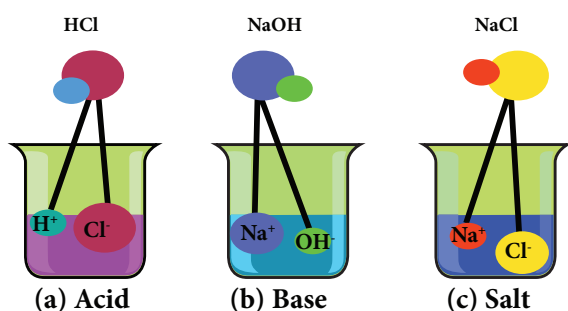


Figure 14.1 Acid, base and salt



Figure 14.2 Acid, base and salt in food