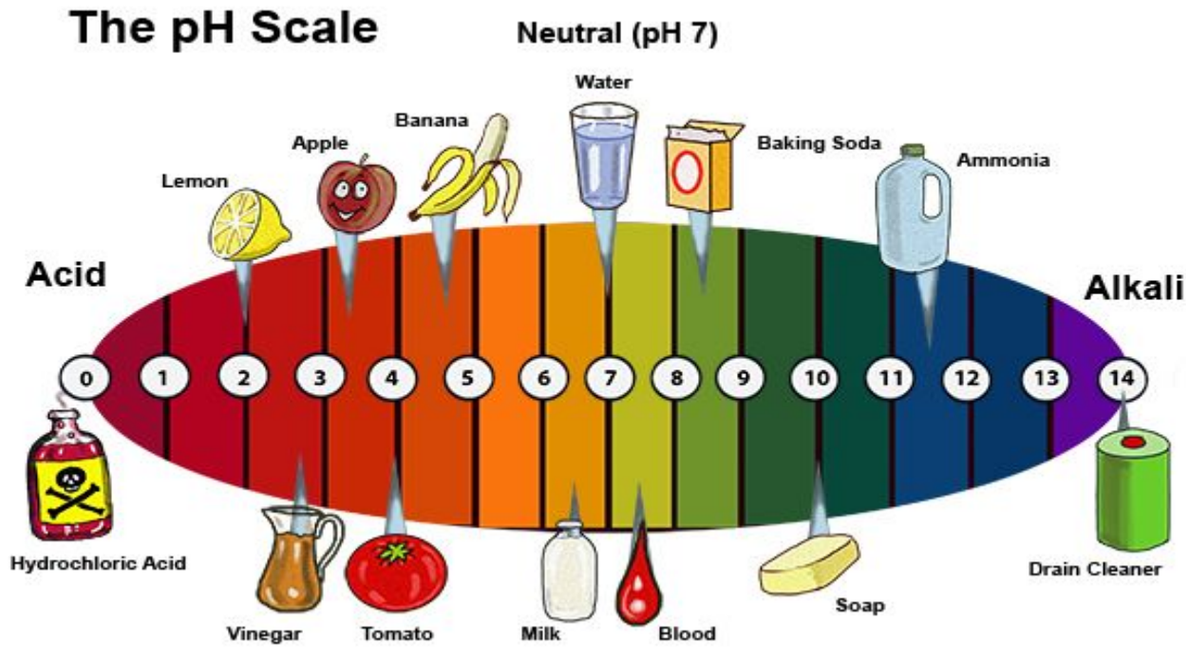
Acids and Bases We Use In Everyday Life

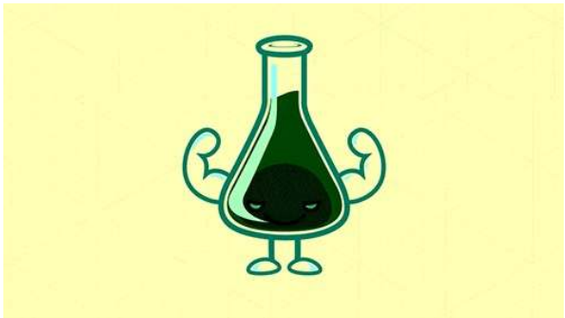
Chemical Engineering (STI West Negros University)

Acids and Bases We Use In Everyday Life

Acids and Bases are encountered daily in chemistry and our everyday life. Both Acids and bases make the critical part and parcel of our livelihood. They play an efficient role inside or outside of our body. From the formation of the food to the decomposition of any substance, acids and bases play a crucial role in our everyday life. Let's check their uses in our daily life.

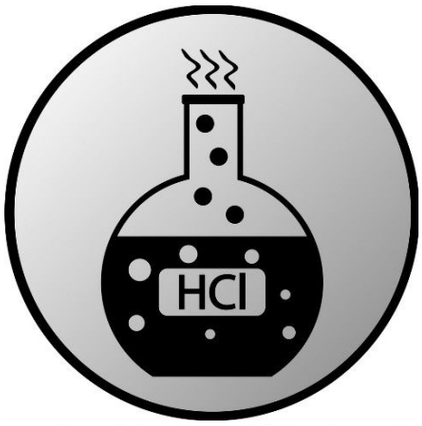


Acids used in everyday life



The name acid gives us sensory images of – **Sourness.** They are the chemical substances; ranging in pH scale from 0 to 7. Acids are common chemicals and can be found everywhere even in our food. Let's check its everyday uses.

1. Hydrochloric Acid (HCl)



Hydrochloric acid is the **strong acid** which is found inside our body in the gastric juice. It helps in the breakdown of all the potatoes and pizzas we eat and turns down the enzymes, which change the food particles into protein. HCl is also used in the formation of many organic compounds like Polyvinyl Chloride and some pharmaceutical drugs.

2. Acetic Acid

The most common form of acetic acid is **vinegar**. It is a popular home staple, which is found in most of the kitchens. People use it for cooking purposes, and this is what gives the salad a delicious taste and pickled vegetables and fruits, their- tart taste.

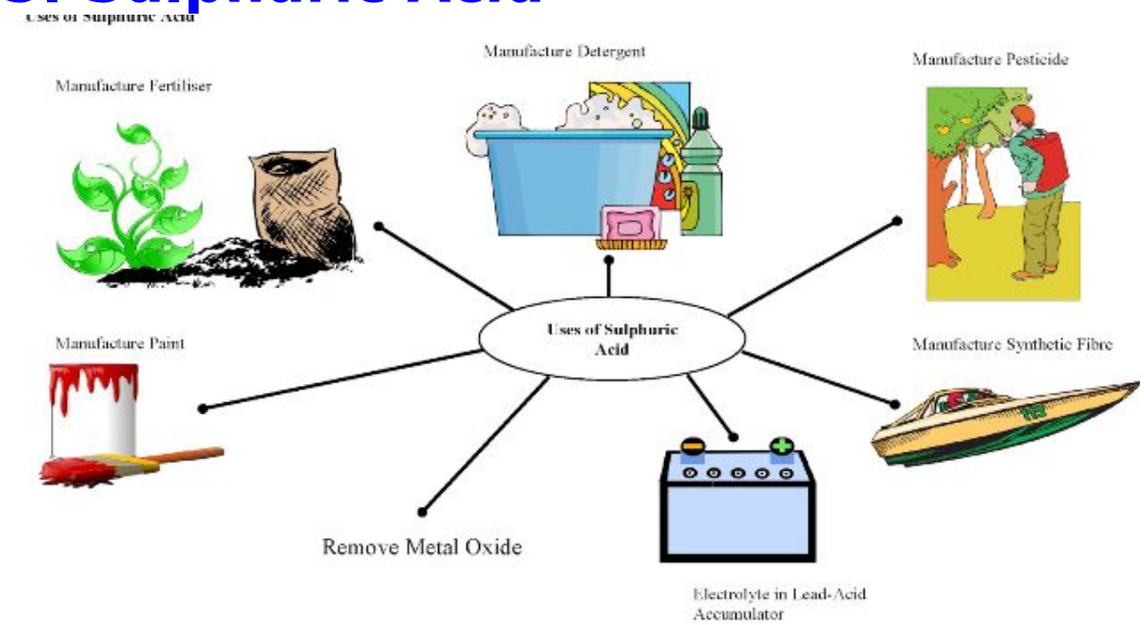
3. Ascorbic or Citric Acid

Citric acids are found in fruits like oranges, lemon, and other citrus fruits. It is widely used as an acidifier and flavouring agent of food. Citric acids are also used in destaining the cloth.

4. Carbonic Acid

When it is too hot, surely most of us would try to find something refreshing to feel relieved like drinking soda or cold drinks. These are the carbonated drinks which, are made by adding carbon dioxide in water. When carbon dioxide reacts with water under a certain pressure, it makes carbonic acid, which causes a refreshing sensation.

5. Sulphuric Acid



Sulphuric acid is a **strong acid** whose single drop can cause a hollow mark in your skin. Apart from its too dangerous property, it has numerous applications. The most common application is the Sulphuric acid found in the car batteries. It is also used in making fertilizers, cleaning products, and manufacturing of polymers. Iron and steel industries use sulfuric acid to remove oxide coatings. It is also used in some solution to unclog the drain.

6. Tartaric Acid

The food industry uses tartaric acid as an additive and flavoring agent. This acid is obtained mostly from fruits like grapes and is mainly used in the manufacturing of wine. It is also used as a food preservative and in settings of gel or jellies.

Bases used in Everday Life

Bases are the chemical compounds, which are soapy in touch and are not usually meant for human consumption. They have a wide range of applications in our daily life. Let’s check some of them.

1. Sodium Flouride (NaF)

We automatically feel the first base of our day after brushing our teeth. Toothpaste, which we mostly use contains sodium fluoride which is slightly basic in nature. This kills the bacteria present in the mouth, which instead prefer a slightly acidic environment, which is exactly the condition of your unbrushed mouth.

2. Sodium Hydroxide (NaOH)

Everyday we take a bath, but water all alone is not enough to make us feel refreshed. We use soap to clean our body, and these soaps contain sodium hydroxide as their main ingredients. Not only in soaps, all the cleaning products including detergents and washing powder also contain sodium hydroxide.

3. Sodium Bicarbonate

Sodium bicarbonate, commonly known as baking soda, is the regular item in our kitchens. People use baking soda in cooking, baking cakes. Being a weak base, it is safe for human consumption. A solution of baking soda is commonly used for cleansing purpose. It is also used as fire extinguisher; because in high temperature, it releases carbon dioxide as a by-product.

4. Magnesium Hydroxide

Magnesium hydroxide is the compounds that are used as anti-acid or for neutralizing the gastric acids. They are used in the antiperspirant deodorant.

5. Calcium Hydroxide

Calcium hydroxide, commonly referred to as Hydrated/Slaked lime, is widely used in cement manufacturing. It is also used in neutralizing the acidity of the soil and treatment of sewage water. Calcium hydroxide is also an additive feed in improving animal nutrition. It is also used in dental procedures.

6. Ammonia (NH3)

Ammonia is one of the widely used bases in agriculture, industries, and homes. It is one of the ingredients of fertilizers. It is used in eliminating stains and tarnishes of soap from tubs, tiles, floors, and even jewellery