

Importance of Chemistry

Chemistry has a direct impact on our life and has wide range of applications in different fields. These are given below:

(A) In Agriculture and Food:

- (i) It has provided chemical fertilizers such as urea, calcium phosphate, sodium nitrate, ammonium phosphate etc.
- (ii) It has helped to protect the crops from insects and harmful bacteria, by the use ' of certain effective insecticides, fungicides and pesticides.
- (iii) The use of preservatives has helped to preserve food products like jam, butter, squashes etc. for longer periods.

(B) In Health and Sanitation:

- (i) It has provided mankind with a large number of life-saving drugs. Today, dysentery and pneumonia are curable due to discovery of sulpha drugs and penicillin life-saving drugs. Cisplatin and taxol have been found to be very effective for cancer therapy and AZT (Azidothymidine) is used for AIDS victims.
- (ii) Disinfectants such as phenol are used to kill the micro-organisms present in drains, toilet, floors etc.
- (iii) A low concentration of chlorine i.e., 0.2 to 0.4 parts per million (ppm) is used ' for sterilization of water to make it fit for drinking purposes.

(C) Saving the Environment:

The rapid industrialisation all over the world has resulted in lot of pollution. Poisonous gases and chemicals are being constantly released in the atmosphere. They are polluting environment at an alarming rate. Scientists are working day and night to develop substitutes which may cause lower pollution. For example, CNG (Compressed Natural Gas), a substitute of petrol, is very effective in checking pollution caused by automobiles.

(D) Application in Industry:

Chemistry has played an important role in developing many industrially ^ manufactured fertilizers, alkalis, acids, salts, dyes, polymers, drugs, soaps, detergents, metal alloys and other inorganic and organic chemicals including new materials contribute in a big way to the national economy.