

Comparison between organic and inorganic compounds

[Environment](#), [Water](#)



Comparison between Organic and Inorganic Compounds

Organic Compounds
| Inorganic Compounds | *Organic Compounds are composed of few elements only. C, H, O, N, S, P and halogens are the most common. | * Inorganic Compounds are composed of all the known elements. | *They are generally found in living matter, i. e., animals and plants. | *They are generally obtained from non-living matter, i. e., minerals. | *They are usually gases, liquids or solids having low melting points. | *They are usually solids having high melting and boiling points. | *These, being covalent compounds, are generally insoluble in water and other polar solvents. These are fairly soluble in non-polar solvents. | *These, being electrovalent compounds, are generally soluble in water and other polar solvents. However, these are insoluble in non-polar solvents. | *The number of these compounds is very large, i. e., well over five million organic compounds are known. Every year thousands of new compounds are added to the existing list. | *The number of these compounds is small, i. e. about one lakh inorganic compounds are known. Their number has become somewhat fixed as new compounds are rarely discovered. | *They are generally volatile and inflammable. | *They are generally non-volatile and non-combustible. | *Their solutions are non-conductors of electricity. | * Their solutions are good- conductors of electricity. | *Chemical reactions are molecular and slow. The yields are poor due to side reactions. | *Chemical reactions are ionic and fast. The yields are quantitative and there is no side reaction. | *They exhibit the phenomenon of isomerism. | *The co-ordination compounds show the phenomenon of isomerism only. | *They have been classified into many classes on the basis of functional groups. Each class is represented by a general formula and the

members show similar properties. Each class is known as homologous series.

| *Homologous series are not found. The compounds are mainly divided as acids, bases and salts. | *Some compounds are highly complex and have high molecular masses. These complex compounds are stable. | *Inorganic compounds are less complex. Comparatively a complex compound is generally less stable. |