

# [Comparison between organic and inorganic compounds](https://assignbuster.com/comparison-between-organic-and-inorganic-compounds/)

[](https://assignbuster.com/)[Environment](https://assignbuster.com/essay-subjects/environment/), [Water](https://assignbuster.com/essay-subjects/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. |