Parameter Fact Sheet – Cyanide

A cyanide is any chemical compound that contains monovalent combining group CN. This group, known as the cyano group, consists of a carbon atom triple-bonded to a nitrogen atom.

In inorganic cyanides, such as sodium cyanide, NaCN, this group is present as the negatively-charged polyatomic cyanide ion (CN$^-)$; these compounds, which are regarded as salts of hydrocyanic acid, are highly toxic. The cyanide ion is isoelectronic with carbon monoxide and with molecular nitrogen. Most cyanides are highly toxic.

Organic cyanides are usually called nitriles; in these, the CN group is linked by a covalent bond to a carbon-containing group, such as methyl (CH$_3$) in methyl cyanide (acetonitrile).

Hydrocyanic acid, also known as hydrogen cyanide, or HCN, is a highly volatile liquid used to prepare acrylonitrile, which is used in the production of acrylic fibres, synthetic rubber, and plastics. Cyanides are employed in a number of chemical processes, including fumigation, case hardening of iron and steel, electroplating, and the concentration of ores.